THE

COMMERCIAL REVIEW

OF THE

SOUTH AND WEST.

ESTABLISHED JANUARY 1, 1846.

J. D. B. DE BOW, EDITOR AND PUBLISHER.

Volume V. JANUARY, 1848. No. 1.

TABLE OF CONTENTS.

ARTICLES.

I. FLORIDA.—Early History; Face of Country; Possession by France and Spain; Present Condition of Florida; the Hammocks—Everglades; Products of Florida—Sugar, Cotton, Rice, Timber, etc.
By E. R. Fairbanks, of Florida. 9

II. MANUFACTURING ADVANTAGES OF THE LOWER OHIO.
By Hon. E. M. Huntington. 13

III. PUBLIC LANDS ACQUIRED BY TREATY, Etc.—Proceedings by the authorities of the United States for ascertaining land titles and claims to land within the former possessions of Great Britain, France and Spain, subsequent to their occupation by the United States.
By J. W. Monette, M. D., author of the History of the Valley of the Mississippi. 15

IV. AMERICAN VINES AND WINES.—Production and Manufacture of Wine; Vineyards at the South; Profits of a Scuppernong Vineyard; Brinkleyville Vineyards, &c.
By Sidney Weller, M. D., of North Carolina. 29

V. THE COMMERCIAL GROWTH AND GREATNESS OF NEW YORK.—Position of Cities; Origin of New York; Early History of; Advances, Improvements, Population, Resources, Commerce, Prospects, &c.
T. P. Kettell, Esq., of New York. 30

VI. ADVANCES OF AGRICULTURAL SCIENCE, Etc.—Manufacture of Sugar; Steam Plough, etc.; Prepared to be read as an Address
By J. P. Benjamin, Esq., of New Orleans. 41

VII. THE SCIENCE OF HISTORY.—Introduction to the History of philosophy, by Victor Cousin, Professor of Philosophy of the faculty of Literature of Paris.
By C. C. S. Farrar, of Louisiana. 58

VIII. CONTRIBUTIONS OF THE NAVY TO SCIENCE AND COMMERCE.—The Gulf Stream; Gulf Weed; Drift; Icebergs; North-Pacific Storms; Abstract Log; Nautical Signs.
By Lieut. M. F. Maury, United States Observatory, Washington. 64

IX. NORTHERN LOUISIANA AND ARKANSAS.—Parishes of Ouachita, Monroe, El Dorado, Camden, Little Rock, Hot Springs of Arkansas, Magnet Cove, Oil Stone Quarries of Arkansas, Farmersville, Society, Health, Water, etc. of Hot Springs.
By R. M. Bry, of Louisiana. 69

MERCANTILE BIOGRAPHY, &c.

1. Jaques Cœur, - - - - - - - - - - 73
2. Resort of Merchants—Royal Exchange, - - - - - 75

MONTHLY COMMERCIAL SUMMARY.

Commerce of the United States for 1847; Commerce of New York; Imports and Exports; Finances of New York; Commercial Embarrassments of England; Panic and Distress; Grain Crops; Prices of Cotton in New York, and decline; Commercial prospect for 1848. 75

AGRICULTURE AND MANUFACTURES SOUTH AND WEST.

1. Culture of the Sugar Cane. By Agricola. 81
2. The Cherokee Rose: Hedging in the South.
By Thomas Affleck, of Miss., 82
3. Difficulties in Sugar Culture—Letter from Mr. Brashear. 86

INTERNAL IMPROVEMENTS, RAIL ROADS, MINING, &c.

1. Holly Springs and Memphis Railroad. By W. Goodman, - - 87
2. Harbors and Rivers, - - - - - - - - - 89
3. Whitney's Pacific Railroad, - - - - - - - - 89
4. Charleston and Tennessee Railroad, - - - - - - 89
5. St. Louis and Cincinnati Railroad, - - - - - - 91
6. Mobile and Ohio Railroad, - - - - - - - 92
7. Connection of Seaboard and Mountains of South Carolina, - - 92
8. Connecting Link Railroad, - - - - - - - 92
9. Mining Resources of North Carolina, - - - - - - 93
10. Mineral Wealth of Missouri, - - - - - - - 93
11. Raft in Red River, - - - - - - - - - 94

COMMERCIAL JURISPRUDENCE AND POLITY.

1. Revising the Laws Louisiana, - - - - - - 95

JOURNAL OF FINANCE AND BANKING.

United States Treasury, 1847, - - - - - - - 96

AMERICAN AND FOREIGN TRADE AND STATISTICS.

Review of leading operations in trade during the month of December, 1847; cotton crop; copper; sugar; tea; Trade—China, Boston, &c. 100

PUBLISHING BUSINESS.

1.—Chambers' Cyclopædia, - - - - - - - 106
2.—Sketches of the Bench and Bar, - - - - - - - 107
3.—Geological Exploration in Iowa, Wisconsin and Illinois, - - - 107
4.—American History, - - - - - - - - - 108
5.—Life of Henry IV. of France, - - - - - - - 108
6.—Campaign Sketches, - - - - - - - - - 108
7.—Editor's Note, - - - - - - - - - 109

THE

COMMERCIAL REVIEW.

Volume V. JANUARY, 1848. No. 1.

Art. I.—FLORIDA.

The adventures of Narvaez and the romantic wanderings of Ponce de Leon and De Soto, in search of the perpetual spring and the fabled mines of gold; the buccaneering of the English; the wars waged with Oglethorpe by the Spaniards; and more recently its long and bloody Indian wars, have given to Florida a greater historical interest than attaches to any other portion of our country. But as one of the youngest sisters of our confederacy, but little is known of her topography, resources and productions. Peninsulated from almost all intercourse with other States, she lies out of the great thoroughfare of travel, and while the commerce of the great West sweeps around her shores, they are looked upon but as so many dangerous reefs and rocks, threatening destruction to the mariner. It is our aim, in the following article, to give some idea of the present actual state and condition of Florida.

The peculiar outline of its coast has probably rendered its general shape and position familiar to every one—having been somewhat aptly compared to a reversed boot. It extends at right angles some five hundred miles west and south, and has a length, in its greatest extension, of nearly one thousand miles (?)

The southern portion of the Peninsula is covered with a large sheet of water, called the Everglades, of immense extent, filled with islands, and which, it is supposed, may be rendered available by drainage. The central portion of the Peninsula is somewhat elevated, the highest point being about 171 feet above the ocean, and gradually declining towards the coast on each side. The portion of the State between the Suwanee and the Chattahoochie rivers, is elevated and hilly; the western portion of the State is level. The St. Johns river, of magnificent dimensions, runs from south to north upon the eastern side of the Peninsula, and debouches near the northeast boundary of the State; and the Suwanee runs a nearly parallel course on the western side of the Peninsula, from north to south.

The first settlement of Florida was made at St. Augustine, in the year 1564—it being, by forty years, the oldest settlement in the United States. Pensacola was settled in the year 1696.

The archives of the country during the period of the Spanish rule, prior to 1768, having been removed, it is difficult now to judge to what extent the country was settled previous to its cession to Great Britain. Remains of ancient settlements are found to a considerable extent between the Suwanee and Chattahoochie rivers; the traces of old roads, fortifications, &c., are very distinct; and gun barrels, pottery, ship spikes, &c., are found; but the public opinion of the country is rather inclined to the supposition that these settlements were made by buccaneers, who, about 1660, swarmed in the southern seas; and the quantity of ship spikes, &c., found, seem to render this opinion highly probable.

It is presumable, therefore, from the known inertness of the Spanish character, and the slight progress made by them in the settlement of new countries, that their settlement of Florida was very limited in extent, and that with the exception of establishing a few mission houses, they never ventured far from the coast, and paid but little attention to the tillage of the soil.

In 1763, the Floridas were ceded by Spain to the British crown. The Spanish inhabitants principally left the country, and it soon began to prosper under the energetic impulse communicated by the Anglo-Saxon race. Efforts at settlement on a large scale were immediately undertaken. The British Government gave extensive grants of land, upon the condition of their settlement. Dr. Turnbull, in connection with some distinguished gentlemen in England, laid the foundation of an extensive colony at New Smyrna, and brought from the islands and shores of the Mediterranean some 1500 families. Lord Rolle, Gov. Moultrie, Earl of Beresford and others, established settlements; and upon the breaking out of the American Revolution, large numbers of loyalists came into the country from Georgia and Carolina.

The exports of Florida in 1780, reached 40,000 barrels of naval stores. One of the principal articles of cultivation seems to have been Indigo; and it is said that the indigo of Florida brought the highest price in the London market.

The British possession of the country continued but twenty years; but during that period more was effected in settling and improving the country, than in its two hundred years of occupation by the Spaniards.

But unfortunately for Florida, in 1783, the province was re-ceded by Great Britain to Spain; and the English population, which in 1778, in East Florida alone, numbered over 13,000, principally left the country and went to the adjoining American States. From that period to its cession to the United States in 1821—a period of about forty years—it languished and struggled along with difficulty; the cultivation of the country neglected; the English settlements having been allowed to go to ruin; and at no time during this period was the population, in both the Floridas, estimated at over 10,000—a large portion of whom lived in town, or were hangers-on of the Government.

The Spanish population, to a considerable extent, left the country upon its cession to the United States, and immigration began to flow

in rapidly; but the unsurveyed state of the country, the uncertainty of land titles, most injudiciously involved in litigation by the Government, militated against its settlement; and the fierce and turbulent Indian race, who had made it a battle ground for over two hundred and fifty years, and who had never been conquered, and had no egress from their peninsular home, occupied the best lands of the State, rendering it impossible to obtain them. But yet, in spite of all these obstacles, a considerable population planted themselves in the country. The Territory was just beginning to reap the fruits of its American occupation, when the desolating Indian war broke out in 1835, and continued for seven long years—rendering all habitations out of the limits of the occupied parts insecure, and destroying all the improvements which had been undertaken. In 1842 this war terminated—and the Seminoles, after a struggle of nearly 300 years, were forced to yield to their destiny, and were nearly all transferred beyond the Mississippi.

Thus the population of Florida had, up to 1842, undergone four entire revolutions; and after having been settled by the European race for two hundred and eighty years, was forced to begin anew the settlement of the country—a series of disasters unparalleled in the history of America.

Since 1842, the actual settlement of the country has commenced, and progressed with reasonable rapidity, the present population being probably about one hundred thousand.

The health of Florida will very favorably compare with any other portion of the Union—having no diseases except slight fevers, and that concomitant of all new countries, fever and ague. The ratio of mortality is believed to be unusually small; while many instances of great longevity are presented.

The lands of Florida are almost *sui generis*, and are very curiously distributed, and may be designated as High Hammock, Low Hammock, Swamp, Savanna, and the different qualities of pine land.

High Hammock is usually timbered with live oak and other species of oak, magnolia, laurel, &c., and is considered the best description of land for general purposes. *Low Hammock*, timbered with live oak, water oak, and subject to overflow—usually needing drainage, but when drained, preferred for sugar. Of this description of land, requiring more or less drainage, large bodies exist in the State. *Savanna*, on the margin of streams and frequently in detached bodies—usually very rich alluviums, and susceptible of being cultivated in dry seasons, and yielding largely: ditching and dyking would render much of it available. *Marsh Savannas*, upon the borders of tide streams, when reclaimed are very valuable for rice or cane—some land of this description, upon the Tomaka, having yielded above three hogsheads of sugar to the acre. First class pine lands are generally preferred by small planters to any other, and they have been found productive and valuable. Indeed, it is believed that the pine lands of Florida are superior to any pine lands in the South for their fertility, yielding good crops in their natural state, and when trodden by cattle, becoming equal to rich hammock land. I have seen, thus early in the season, cane having above twenty joints and well matured,

grown upon Florida pine lands: and the sugar made from such lands is generally of superior quality. The hammock lands, when cleared, make excellent crops at all seasons.

The chief staple of Florida, at present, is Cotton—the region west of the Suwanee cultivating the Upland, and the eastern portion of the State producing Sea Island, of a quality bringing from 20 to 30 cents per pound the last season, the coast usually producing the first quality.

The Sugar Cane will, however, in a few years, become the staple of the Peninsula, which, from its climate, soil and facilities, is peculiarly adapted for its cultivation. It is now cultivated for home consumption by almost every planter, small and great; but the expense of machinery, and the time required to get under way, has deterred many from abandoning their cotton to raise cane.

Previous to the Indian war, a large number of sugar plantations had been established on the eastern coast of Florida, upon the Halifax, Matanzas, Tomoka and Hillsborough rivers, where the lands are principally the heaviest live oak hammock, and by their advantageous situation upon navigable streams, are very suitable for cane. The cultivation was carried on successfully; and had not the Indian war desolated the country and entirely broken up these establishments, the sugar crop of Florida would now have been a large one. The interior of the Peninsula is well adapted to the cane, as is, indeed, the whole Peninsula extending southward from lat. 30 to lat 23; Florida approaching most nearly to the temperature of Cuba of any part of the South. Lands suitable for the cultivation of sugar, may be purchased at the present time at very low prices, from the Government price of $1 25, to $5 and $10 per acre, in private hands, according to their situation. Even the old plantations, with their improvements, may now be bought at from $5 to $10 per acre; but as the country becomes settled, of course lands will rise in value.

Cattle are among the most productive sources of income to the Floridian. The vast ranges of unoccupied land give the greatest abundance of perpetual verdure and green pasture, and they double in three years, and may now be purchased in any quantity at $5 per head. Swine are equally profitable, requiring little care or attention. Horses and mules are also raised, without care or expense.

Tar and Turpentine, which were in British times extensive articles of export, have been neglected for a long period; but the profitable operations of North Carolina have recently awakened renewed attention to this branch of manufacture, and shipments made from the St. John's last season, it is said, have proved profitable.

Rice has also been neglected, as a staple, since the days of British cultivation, when it was raised to a considerable extent. The lands suitable for its cultivation are abundant along our rivers and streams; and when our population is sufficiently dense to develop all our resources, it will, no doubt, be one of the most important branches of culture.

Fish, Oysters and Turtle abound in the greatest profusion, and the Havana fish market receives a large portion of its supplies from the coasts of Florida.

The Oak, Cedar and Pine of Florida are becoming valuable for shipment. The Navy yards have drawn their supplies of Live Oak, for many years, from our forests; and the diminution and high prices of pine lumber at the North, are bringing our Yellow Pine into great demand, and its shipment is rapidly increasing.

Among the various miscellaneous articles which have been found well adapted to the country, may be mentioned the Orange, Lemon, Banana, Olive, Hemp, Palma Christi, Benne, Arrow Root, Cassava, Indigo, &c.

Take it all in all, Florida, at the present time, affords as good an opening to the Southern planter desirous of changing his location, as any portion of the Union: and indeed our partiality would lead us to say that, taking into view its splendid climate, tropical latitude, facility of water communication, the fertility of its soil and the low price of its lands, that it affords stronger inducements to the prospective settler, than any other portion of the South, and that capital and enterprise will make it a great State.

Art. II.—MANUFACTURING ADVANTAGES OF THE LOWER OHIO.

If, as is conjectured by some, the recent extensive failures in Great Britain have been chiefly confined to the manufacturers of cotton, and to those who as merchants, factors and bankers, have been connected in some shape with the cotton trade, it is very clear that they cannot bear up against American competition any longer. If the high price of provisions during the last year has affected the price of labor in their factories—which does not appear from any thing we have seen; still, their remoteness from the raw material must far more than countervail any advantages they can ever have over us on the score of cheap labor, or the perfection of their machinery. Indeed, under the late improvements in machinery, the cost of manufacturing in this country has been greatly reduced; added to this the comparative cheapness of living, and, above all, the price of the raw material—having, as the English manufacturers do, three thousand miles of ocean transportation—it is impossible that they can ever again compete with us in this branch of industry. Under all the changes of our tariff laws, our manufactories have been steadily increasing, until they have acquired a solidity which no legislation can possibly shake.

But is the manufacture of cotton to be confined chiefly to the rugged hills of New England? To the minds of some of us, the day is coming when the valley of the Ohio will, so far as this great interest is concerned, bear the same relation to New England, that New England now does to Great Britain. It is now settled incontestibly, that steam power, where coal is cheap, is cheaper than the cheapest water power for propelling machinery. This, then, is our position in the West. The great Illinois coal field touches and crosses the Ohio river, say 100 miles below Louisville. There, on either the Kentucky or Indiana side, for one hundred miles, may be found large quantities of the finest coal for steam purposes, which may be had at the river banks for four to five cents per bushel. In New England,

where steam power is used—and that is the case in many of the most extensive and recently erected factories—the cost of coal is, on an average, full 20 cents per bushel; making a difference in our favor, in this single important item, of full three hundred per cent. Here on the Ohio river we are within ear-shot of the cotton-fields of Tennessee, Alabama, Mississippi and Arkansas—on a river navigable at all seasons of the year—where provisions are, and always will be, cheaper than in any other part of the United States—in a perfectly healthy position, and as far south as is compatible with this important consideration. Add to this that we are in the centre of the great Mississippi Valley, where our market for the manufactured article is known to be the best in this country. With these manifest advantages over New England, why should we go there for our manufactured cottons? Or, rather, why should we not avail ourselves of our superior position and resources, and supply the markets of the world with cotton fabrics? Nor must it be overlooked that, for the manufacture of *iron* and *hemp* we possess the same natural advantages, viz: the *raw material and the moving power.*

Allow me to make another suggestion for the consideration of the South. It is certain that, at no distant day, a railroad communication will be established between the Northern Atlantic cities and the navigable waters of the West. This noble scheme of internal communication will connect the whole great Valley of the Mississippi with the Southern Atlantic sea-board; and when that is accomplished, it requires no prophet to foresee that the commanding ascendancy of the Northern cities in the business of foreign importations and internal commerce, must be greatly impaired. It is impossible to estimate the effect which the opening of such a direct communication will have upon all the relations of the South and West. Is it not, then, in the present and prospective condition of the cotton trade, and of cotton manufactures, also clearly the policy of the South to foster the establishment of manufactories of otton, iron and hemp, on the tributaries of the Mississippi? Not by the enactment of Tariff laws for protection—for Nature has given all the protection necessary—but by the investment of a portion of her surplus capital in these enterprises, whereby she will enlarge her market at home for the product of her cotton fields, and, in time, link indissolubly together those great interests of cotton production and cotton manufacture? Connected as we are by an immense extent of navigable rivers which flow into the Gulf of Mexico, our geographical affinities are all-powerful: and if, superadded to these, our interests are combined by the system of policy to which I have alluded, no agitations growing out of Southern institutions can ever disturb this powerful sympathy. The Western free States, in the angry controversies between the North and the South, so much to be deplored, occupy *neutral ground;* but Nature, by those powerful arteries of commerce, our noble rivers, and by those immense coal fields which lie along the southern boundaries of the free States of Indiana and Illinois, and which, with the cotton of the South, constitute the *pabulum* of the most important manufacturing interests of the country, must forever, with preponderating force, throw the West and the South together.

INDIANA.

Art. III—PUBLIC LANDS ACQUIRED BY TREATY, ETC.

PROCEEDINGS BY THE AUTHORITIES OF THE UNITED STATES FOR ASCERTAINING AND ADJUDICATING LAND TITLES, AND CLAIMS TO LAND, WITHIN THE FORMER POSSESSIONS OF GREAT BRITAIN, FRANCE AND SPAIN, SUBSEQUENT TO THEIR OCCUPATION BY THE UNITED STATES.

The adjudication of claims to lands lying within territories conquered or purchased from a foreign power, is ever one of the most perplexing and difficult matters that can be brought before the Judiciary of a country. Our own experience has been quite sufficient upon this point, to go no further. We have thought it an appropriate subject for an article in our Review, and are delighted that our able friend, Dr. MONETTE, of Mississippi, has consented to prepare it in the elaborate manner now presented to the reader. Henceforward there will arise other questions, and difficulties of a like nature, should there be any acquisitions of land growing out of the Mexican war—and we ought in some sort to be prepared in advance for their discussion. ED. COM. REV.

THE first portion of the Western territory acquired by the United States from Great Britain, which called for the interposition of Congress for the adjustment of land claims growing out of foreign jurisdiction, was that of the *Natchez District of West Florida.*

The surrender of this country by his Catholic Majesty, left the inhabitants embarrassed by conflicting private land claims derived from different Governments, while it was not free from conflicting claims as to the State sovereignty itself. Although the country had been organized into the Mississippi Territory, the State of Georgia claimed the sovereignty of all the territory north of the 31st degree of latitude, westward to the Mississippi; and it was not until the 24th of April, 1802, that the State of Georgia, by the "Articles of Agreement and Cession," relinquished her claim to the United States, in consideration of one million, two hundred and fifty thousand dollars. The United States subsequently proceeded to adjudicate private claims emanating from either English, Spanish or Georgia concessions duly made prior to 27th October, 1795, the date of the Treaty of Madrid, which provided for its surrender to the United States.

The first provision by Congress was *An act regulating grants of land, and providing for the disposal of the lands of the United States south of the State of Tennessee;* approved March 3d, 1803.

This act provided for two Boards of Commissioners, attached to two Land Districts, with authority to examine and adjudicate all private land claims emanating from either of the Governments above enumerated, agreeably to the laws, customs and usages of the same.

The *first* section of the act provided that all *heads of families* actually resident in the country, holding claims in virtue either of complete grants, or orders of survey, emanating from the English, Spanish or Georgia Governments prior to October 27, 1795, for land to which the Indian title had been extinguished, should be *confirmed in their several titles.*

The *second* section provided for *settlement rights* to those actual inhabitants who were without such titles; granting to every person twenty-one years of age, who actually inhabited and cultivated any lands on the 30th day of March, 1797—the day on which the Spanish troops finally evacuated this portion of the country—a tract of land not exceeding 640 acres, to include their improvement.

The *third* section provided a *pre-emption right* to all persons, twenty years of age, who occupied and cultivated lands, (not secured by either of the first or second section) on the 3rd of March, 1803, the date of the passage of said act.

The period allowed for the presentation of claims was limited to the 31st of March, 1804, but was subsequently extended by Congress.

The Board of Commissioners for the District west of Pearl river, consisted of Thomas Rodney and Robert Williams, commissioners, and Edward Turner, Recorder. This Board convened in the town of Washington, Adams county, and continued to receive and adjudicate claims until the 3d of July, 1807, when it adjourned finally, having adjudicated no less than *two thousand and ninety claims*, besides a number of British grants which were not acted upon by the Board, and which were held as conflicting claims to lands in the Natchez District, until finally adjudicated by the Federal Court, in 1824. (1)

The Board for the District east of Pearl river convened at Fort Stoddart, on the Mobile river, on the 2d of February, 1804, and consisted of Ephraim Kirby and Robert Carter Nicholas, commissioners, and Robert Chambers, Recorder. This Board continued its sessions until September 21, 1805, when it finally adjourned, having adjudicated *two hundred and seventy-six claims.*

The subsequent disposition of lands in the Mississippi Territory, was regulated by laws of Congress, through the General Land Office and the District Offices, and claimants were quieted in their titles until the year 1824—when the holders of certain British patents, through their agent, Seth Hunt, instituted suit in the District Federal Court at Natchez, in order to test the validity of the British patents issued by the Governor of West Florida, north of the original southern limit of Georgia. The Court decreed such grants null and void; and the question of title in the Natchez District became settled forever as regards foreign grants. (2)

II. IN THE ILLINOIS COUNTRY.

The Illinois country, prior to its occupancy by the United States, had been successively under the dominion of France and Great Britain; and each power had exercised civil and military jurisdiction over a few dependant settlements, sparsely distributed over a wide extent of country, lying chiefly on the east bank of the Upper Mississippi and its immediate tributaries. These isolated settlements comprised the residence of the early French colonies, which first penetrated the Illinois country from Canada, and subsequently established the dominion of France on the Upper Mississippi. Deserted by their associates and countrymen, who still adhered to the cause of France, they reluctantly submitted to the dominion of Great Britain, quietly resigning themselves to the fate of war. But scarcely had the English authority been established over them, and their fears of

(1) Records of Land Office at Washington, Miss.

(2) Wheaton's Reports, pp. 523 to 530. Also, Walker's Reports of the Supreme Court of Mississippi, pp. 52, 53, &c. Also, American State papers, *Public Lands.*

foreign domination dispelled, when a new enemy assailed them, and the fate of war again placed them at variance with their English masters. Hence, before they had in any measure lost their national traits and customs, or had in any wise adopted those of their English conquerors, they found themselves nominally and in fact, citizens of the United States—released from the military domination of British authorities, but under the jurisdiction of the State of Virginia. A few years more brought another political change, and they found themselves under the exclusive jurisdiction of the Federal Government, and associated with the rude, active, enterprising pioneer of the West, pressing forward into all the remote settlements, in quest of Indian traffic and land speculation.

In regard to their land titles, the original French inhabitants of the counties of Knox and St. Clair, from 1790 to 1800, were peculiarly situated. The greater number of them holding claims and imperfect titles to lands, derived either from the French or English authorities prior to the treaty of 1783, or based upon acts of Congress and the laws of Virginia subsequently, it became a matter of deep interest that the validity of their claims and titles should be settled by the proper authorities, so that they might be quieted in their respective claims. For this purpose two acts of Congress were passed, in the year 1783—one approved on the 20th of June, and the other on the 28th of August, both designed for their relief. The *first* authorized the Governor of the Northwestern Territory to examine and *confirm temporarily* all claims and titles legally derived from the French, English or American authorities. The *second* provided for the "allowance of *settlement rights* of 400 acres to all such as had, on or before the close of the year 1783, acknowledged and professed themselves citizens of the United States, or either of them."

Although situated five or six hundred miles from the seat of the Territorial Government, numerous applicants filed their claims with the Governor for examination and confirmation, as coming within the provisions contemplated by the acts of Congress. Although unskilled in many of the pre-requisites for a profound investigation of these claims, Governor St. Clair did not hesitate in the exercise of his prerogative, by a summary adjudication in favor of numerous claims in the hands of speculators and land-jobbers, and which were subsequently adjudged to be spurious. In many cases, not fully comprehending the subordinate nature of his powers, he proceeded in an irregular manner with his adjudications, greatly prejudicing the interests of the Government, and promoting the improper views of designing men. (3) Yet he persisted in the exercise of his prerogative in these adjudications, in the county of Wayne, and within the Indiana Territory, even after his jurisdiction was confined to the present boundary of Ohio. During this period, claims of every shade and character were admitted and confirmed in such numbers, and a majority of them with so little claim to law and justice, that the greater portion of his decisions were unceremoneously reversed by the Board of Land Commissioners ten years afterward.

---

(3) American State Papers—*Public Lands.* Vol. II, pp. 163 and 114.

Among the confirmations of Governor St. Clair, was the alleged grant of John Wilkins, British commandant of the Illinois country, dated April 22, 1769, made in favor of John Baynton, Samuel Wharton and George Morgan, for 13,980 acres, and confirmed by the Governor's patent, dated August 12, 1800. This claim, when thus confirmed, was the joint property of John Edgar and John Murray St. Clair, son of the Governor, and covered some of the finest lands in the vicinity of Prairie du Rocher, northwest of Kaskaskia. Relative to this claim, the Board of Commissioners, in 1810, reported against its confirmation, observing, "that under the circumstances, if this instrument is to be taken as *a Governor's patent*, and if this Board be possessed of authority to express an opinion on this subject, they do not hesitate to express it: *that the Governor has transcended his powers; that the grant has been improperly obtained, and is of no validity.*" (4)

During the French dominion, comparatively few grants of land were made to individuals beyond the limits of the village concessions; and many of these were abandoned on the change of Government. The English Government, during their brief command, were vested with authority to make the ordinary grants to actual settlers, and to a certain class of meritorious soldiers and officers, designated in the noted proclamation of October 7, 1763. So far as the English commandants in the Illinois country were governed in their grants or concessions by the laws and regulations provided for the Provincial Governments, their grants and concessions were good and valid—but no further.

Under the jurisdiction of Virginia, no commandant had authority to grant or appropriate public lands to the use and benefit of individuals, otherwise than was provided by law, for military service in defence of the country. Warrants for the occupancy of wild lands in Virginia were confined exclusively to location within the regular State boundary.

Subsequent to the extension of the Federal Government over the Northwestern Territory, bounties of land for military service were allowed by acts of Congress for such as served in the local militia, for the defence of the settlements against Indian hostility.

Such were the grounds for land claims in the Illinois and Wabash countries; and such was the extent and material presented to land jobbers and speculators, for the exercise of their peculiar faculties in securing large bodies of the finest lands in this portion of the Indiana and Illinois Territories. Nor could it reasonably be expected that Governor St. Clair, engaged with the multifarious duties of his office, should have been able, in the adjudication of the numerous claims submitted for his decision, to scrutinize all the possible sources of fraud so intimately blended in the majority of them, or that he should have acquired an intimate knowledge of the former laws, usages and customs, which regulated the official acts of the English or French authorities, or of the laws of Virginia and of Congress, which might bear upon such claims. Hence it is not a matter of surprise, that

(4) American State Papers—*Public Lands.* Vol. II, p. 208.

among the numerous claims presented, he should have allowed and confirmed a large proportion which were fraudulent in their nature and inception, urged and supported as they were by wealthy traders and speculators, and sustained by their subordinates, as unscrupulous as themselves. Yet the facility with which confirmation of land titles were obtained from Gov. St. Clair was such, that speculators and land jobbers became emboldened in their attempts to establish other claims, which were fraudulent in their inception, and without shadow of foundation in law or justice; claims which originated in forgery, and were supported by perjury and every species of corruption.

All concessions or incipient grants of land by the French authorities prior to the peace of 1763, had been made to a few favored individuals, who introduced emigrants under the patronage and protection of wealthy proprietors, deriving their grants from the crown, for the establishment of colonies. In this manner were made most of the settlements at Detroit, as well as at Vincennes, Kaskaskia, and other villages upon the Upper Mississippi and the Illinois. Large grants made in this manner, subjected the proprietors to all the requisitions, fines, forfeitures, alienations and quit-rents pertaining to the feudal tenures of Europe. In some instances the British commandants subsequently promised a discharge from these forfeitures, in consideration of public service and labor upon the public works, under the English dominion. (5)

Grants were but rarely made by the British commandants in the Illinois country; at least, if made, they were not in conformity with the King's proclamation of October 7, 1763, and the subsequent ordinances; and all grants or concessions made contrary to these, were null and void to all intents and purposes; as were also *purchases* made by individuals or associations from the native tribes. Yet numerous alleged grants for large bodies of land in the Illinois country and upon the Wabash, purporting to have been made by the several British commandants of those districts, were presented to Governor St. Clair for confirmation prior to the year 1800; and strange as it may appear, such was the influence exerted by favorite speculators and land-jobbers upon the Governor, that he continued, up to the last day of his jurisdiction over the Indiana Territory, to ratify and confirm these spurious claims, which had already multiplied to more than *three hundred*, in the hands of corrupt men and designing speculators. (2) A few similar confirmations were subsequently made by his successor, Governor Harrison, prior to the year 1804.

It was not until the year 1804, that effectual measures were taken by Congress, for a thorough examination and final adjudication of the numerous "claims to land," which were known to be in the hands of such adventurers as had found their way into the remote portions of the Indiana Territory, and especially in the District of Kaskaskia. The first measure to effect this object, was the passage of an act entitled "*An act making provision for the disposal of the public lands in the Indiana Territory, and for other purposes;*" approved March

(5) American State Papers—*Public Lands.* Vol. I, p. 197, col. 1, folio ed.
(2) Ibidem.

26, 1804. This act provided for the regular survey of all the public lands, (to which the Indian title then was, or might thereafter be extinguished) into regular square sections of 640 acres, arranged in regular townships, each six miles square, wherein should be designated all *private claims*, or grants to land, which should be finally recognized by Congress. For the accomplishment of this object, the act further provided for the organization of "*a Surveyor General's Office*, and "*three District Land Offices.*" The Land Offices, each with a Register and Receiver, were located at Detroit, Vincennes and Kaskaskia.

In order to ascertain the number and extent of private claims in each of these Districts, a Board of Commissioners was attached to each Land Office, with full powers to receive, examine, adjudicate and decide upon all claims presented, whether derived from French or English grants and concessions, or derived in virtue of any act of Congress. The Commissioners were authorized to confirm all complete titles and private claims to land, in virtue of any *legal* grant or concession, made by the French authorities, prior to the 10th day of February, 1763, or by the British authorities subsequently and prior to September 3d, 1783; or in virtue of any resolution or act of Congress subsequent to the treaty of 1783; provided the said claim were duly *filed and recorded* in the office of the Register of the District in which the land was situated, together with its nature, extent, and any written evidence in support of the same, on or before the first day of February, 1805.

The Commissioners attached to each Land Office were required, from and after the first day of January, 1805, to enter upon the examination and adjudication of all claims duly filed with the Register, and to report their decisions upon the same, from time to time, to Congress for *their final confirmation or rejection* of said claims. (6)

In their report of adjudicated claims, the commissioners were required to arrange them under the following classes, viz: 1st, those which were unequivocally recommended for confirmation, and for which certificates were issued to the holders; 2d, those which in equity *ought to be* confirmed; and, 3d, those which were fraudulent, and which *ought not to be* confirmed.

The claims which had formerly been confirmed temporarily by the Governors of the Northwestern and Indiana Territories, were likewise subjected to the final adjudication of the Commissioners, as other cases.

The passage of this act gave a new impulse to land-jobbers and speculators, who had possessed themselves of numerous spurious titles and fraudulent claims, for the adjudication of the Commissioners when they should enter upon the duties of their office. To carry out their purpose of securing the confirmation of their claims and factitious titles, the speculators associated themselves into a combination to resist and defeat the ends of justice, and to defraud the Government out of large bodies of public lands. At the head of this combination were adventurers who had been long in advance of the white settlements, in the capacity of Indian traders, agents and speculators,

(6) Land Laws of the United States, pp. 495, 503.

skilled in modes, forms and usages, for preparing inchoate land titles under the French, Spanish, English and American Governments respectively. Aided and abetted in their designs by unprincipled men and accomplices, they gave ample latitude to their schemes of speculation. Among them were men who did not confine their operations alone to the Illinois country, but equally to Upper and Lower Louisiana, and whose trading operations extended to the whole of Lower Louisiana, Florida, and even to Texas. Hence it was that Major Stoddart, early in 1805, while Governor of Upper Louisiana, gave notice to the Federal Government that "he had become apprised of a numerous combination, for the purpose of defrauding the Federal Government of immense quantities of valuable lands in the Illinois country, by means of spurious and factitious claims, contemplated by numerous individuals, capitalists and traders, who had flocked to that remote region. At the bottom of the conspiracy was suspected a man by the name of M*******, who had been actively concerned on the Upper Mississippi, and who at that time commanded a post near New Orleans. (7)

The great field of operations was Kaskaskia, the location of the Land Office for the Illinois country. The commissioners for this district were Michael Jones and E. Bacchus—both men of known firmness and unimpeachable integrity in the discharge of their official duties.

The commissioners entered upon the responsible duties of their office, and continued in the laborious, vexatious and hazardous exercise of the same during the course of three years, when they made their final report to the Secretary of the Treasury, on the 31st of December, 1809: having examined and adjudicated no less than *two thousand three hundred and eighty claims!*

These claims were alleged to have been derived from the following sources, viz:

1st. *Ancient grants*, legally made by the French and English authorities, comprising *one hundred and eleven claims*—of which *forty-seven* were confirmed, and *forty-one* rejected. (8)

2d. *Settlement rights*, under the laws of Virginia, or those of Congress, each for 400 acres, comprising *seven hundred and twenty claims.* Of these, *two hundred and sixty* were confirmed, and *four hundred and sixty* were rejected for gross fraud and perjury.

3d. *Donations*, of 400 acres and militia service, to the heads of families residing in the Illinois country at the conquest by Virginia, or at the peace of 1783, comprising *eight hundred and sixty-six* claims—of which *two hundred and eighty-six* were confirmed, and *five hundred and eighty were rejected, for gross fraud and perjury in nearly every case.*

Among the claims rejected by the commissioners, were no less than *five hundred* which had been improperly confirmed by Governor St.

(7) This is supposed to mean Don Francisco Morrison, Commandant of Fort Charlotte, at Mobile, and a relative of the Morrisons at Kaskaskia, who traded extensively throughout the Spanish provinces, from Florida to New Mexico.

(8) American State Papers—*Public Lands*, vol. II, pp. 131, 134, 138; also pp. 113–116; also 173–206.

Clair prior to 1800, and by Governor Harrison prior to 1804. Of these, *two hundred and ten* purported to be for militia service—*one hundred and eighty* for donations, and *one hundred and ten* for settlement rights.

In addition to the numerous confirmations for larger tracts of land, the commissioners recommended for confirmation the homesteads and common fields in and adjacent to the following villages, viz: (9)

In the village of	Kaskaskia and vicinity,	: : : :	234	claims.
" " "	Du Rocher,	: : : : : :	50	"
" " "	Fort Chartres,	: : : : : :	55	"
" " "	St. Philip,	: : : : : :	60	"
" " "	Cahokia,	: : : : : :	176	"
" " "	Prairie Dupont,	: : : : : :	68	"
	Total village claim,	: : : : :	643	"

It was during their term of service that the commissioners were authorized to reconsider and adjudicate the claims confirmed by Governors St. Clair and Harrison, and to report finally upon them in accordance with the act of Congress approved March 3, 1807, and entitled "An act confirming claims to land in the District of Vincennes, and for other purposes."

The *second* section of this act provided "that all claims and titles to land heretofore confirmed by said Governors be, and *are hereby confirmed*, unless when actually rejected by said commissioners. (10)

In the memorable frauds attempted in the District of Kaskaskia, from the year 1805 to the year 1808, no man was more active or more unscrupulous in the accomplishment of his purposes than John Edgar, formerly an Indian trader and land speculator. Next to him, in their zeal and activity to sustain fraudulent claims by means of corrupt witnesses, may be named Robert Reynolds, formerly an Indian trader, William Morrison, Richard Lord, and William Kelley. (11). William Morrison, as early as 1804, had been one of the most enterprising merchants and traders of Kaskaskia, and extended his operations as far as Santa Fe and Texas. (12)

John Edgar had been successful in procuring from Governor St. Clair the confirmation of a large number of spurious claims, including several factitious grants for large bodies of land, in some of which the Governor became indirectly interested before confirmation. This same John Edgar was the owner and claimant of more than two hundred of the claims which were rejected by the Board, on account of gross fraud and perjury. Nor was his associate, William Morrison, more fortunate in his efforts to establish fraudulent claims by perjured testimony. Those who became their willing tools, and prostituted themselves at the shrine of perjury and corruption, were Auguste Langlois, John Harris, Johnston Amberson, Daniel Thorn, Solomon Thorn, Joseph Page, John B. Montrieuville, Simon Zoiton, Nicholas Revelle, J. Cook, Jno. McMutrey, and Ashur Bagley. (13)

---

(9) American State Papers—*Public Lands*, vol. II, pp. 157–175.
(10) Land Laws of U. States, pp. 554, &c.—edition of 1827.
(11) American State Papers—*Public Lands*, vol. 2, p. 108.
(12) See Pike's Expedition, p. 195.
(13) American State Papers—*Public Lands*, vol. II, p. 103—col. 1.

These individuals, by open perjury and manifest forgery, had attempted to establish, for their corrupt principals, no less than *five hundred* spurious claims, as was fully proven, and even confessed by themselves.

Nor were the commissioners free from danger in resisting these frauds, by the faithful discharge of their duty. Such had been the apprehension and danger of personal violence, on the part of the commissioners, for their firmness and integrity, and such the manifestations of individual hostility and revenge on the part of disappointed speculators, that they concluded the report of their labors in the following expressive language, viz: "We close this melancholy picture of human depravity, by rendering our devout acknowledgements that, in the *awful alternative* in which we have been placed, of either *admitting perjured testimony* in support of the claims before us, or having it turned against our characters and lives, that it has, as yet, pleased that Divine Providence which rules over the affairs of men, to preserve us, both from legal murder and private assassination." (14)

Such is a brief outline of the scenes of fraud and perjury at Kaskaskia, forty years ago, and which, in many of its features, was re-enacted in the Chactas and Chickasas purchases of Mississippi thirty years afterwards, by speculators in Indian claims and reservations.

In the District of Vincennes, the commissioners, John Badollet and Nathaniel Ewing, had less arduous duties to perform. After a term of fifteen months they rendered their final report, signed March 25th, 1806, comprising] the confirmations of *two hundred and forty-seven* claims originating chiefly prior to 1783—besides *ninety-seven ancient grants*, suspended for want of testimony, and some militia claims subsequently allowed. (15)

In the District of Detroit, no such extensive combinations had been formed to defeat the ends of justice, and the commissioners proceeded quietly in the discharge of their official duties, until they had finally adjudicated several hundred claims.

III. IN THE PROVINCE OF LOUISIANA.

The treaty of Paris secured to the inhabitants of Louisiana protection in the free enjoyment of their liberty, *property* and religion. In a vast and almost uninhabited territory, no species of property was deemed more intrinsically valuable than choice selections of qirgin soil, with the attendant advantages which were soon to render it the great focus of emigration, and the nursery of agriculture and commerce. Hence the swarming emigrants from the United States, as well as those from France and the Spanish provinces, had begun to perceive that no investment could more certainly secure for their posterity a rich inheritance. Hence every emigrant sought the acquisition of land for himself and family—a boon which was freely given by the Spanish Government for the introduction of a useful member of society, which might augment the strength and resources of the province. To the Spanish authorities, the public domain was import-

(14) American State Papers—*Public Lands*, vol. 2, p. 105.
(15) Idem, pp. 382-385.

ant only as a means of increasing the number of inhabitants, and of augmenting their resources. Hence the policy prescribed by the Spanish Government, was just such as suited the emigrant with his rising family; for he could secure land in proportion to the number of his children. Hence this species of property interested, either directly or indirectly, every man, woman and child in the province. Hence Congress, at the earliest opportunity, adopted measures for its protection. In order to secure to the inhabitants the utmost advantages they could have derived from a continuance of the Spanish dominion, it was resolved to withhold from them no concesssion of land which, under the most favorable circumstances, could have been acquired from the Spanish authorities themselves. Thus not only the *titles to land*, but the *intention* to concede it, was recognized and sustained by the authorities of the United States. And this very favorable policy was immediately seized upon by the designing men and the pliant avarice of the Spanish authorities, who were about to retire from the country. Thus aided and instructed, corrupt men soon began to devise means by which titles and concessions for land might be multiplied for confirmation by the Federal Government. It was in order to guard against such fraudulent practices, that the 14th section of the "Act erecting Louisiana into two Territories, and providing for the temporary government of the same," and approved March 3d, 1804, provided "that all grants for lands within the territories ceded by the French Republic to the United States, by the treaty of April 30th, 1803, the title whereof was at the date of the treaty of St. Ildefonso, (Oct. 1, 1800) in the Crown, Government, or nation of Spain, and every act and proceeding subsequent thereto, of whatsoever nature, *toward the obtaining any grant*, title or claim to said lands, and under whatsoever authority transacted or pretended, be, and the same is hereby declared to be, and to have been, from the beginning, null, void, and of no effect in law or equity." (16)

It was expressly declared that the object of the law was *not* to impair any *bona fide* grant made agreeably to the laws, usages and customs of the Spanish Government, nor to impair the claim of *any actual settler*, to lands actually granted to himself and family, nor to impair any *bona fide* act or proceeding of an actual settler, toward the attainment of any lands actually settled prior to the 20th of December, 1803, to an amount *not exceeding* one mile square; together with such other and further quantity as heretofore hath been allowed for the *wife and family* of such actual settler, agreeably to the laws, usages and customs of the Spanish Government."

Still further to preserve the integrity of the public domain as it actually existed at the delivery of the province by Spain and France, the same section makes it a *penal offence* for any person to make a settlement upon the *lands of the United States* within the limits of Louisiana, or to *survey and mark* the boundaries of any survey, by marking trees or otherwise.

Such were the precautionary measures on the part of the United States to prohibit designing men—speculators and their accomplices,

(16) See Land Laws of U. States, pp. 509, &c.,—compilation of 1827.

aided by the corrupt Syanish ex-officials, who were known to be actively engaged in such fraudulent practices—from making and establishing factitious claims to land, by means of orders of survey, requetes or concessions, fraudulently made and antedated.

The first provision made by Congress toward the final disposition of the numerous titles and claims to land, was the passage of a law entitled "*An act for ascertaining and adjusting the titles and claims to land within the Territory of Orleans and District of Louisiana;*" approved March 3d, 1805. (17)

The *first* section of this act provided for the confirmation of all grants, concessions and orders of survey, duly made by the Spanish or French authorities to the *heads of families prior to the* 1*st of October*, 1800; provided they, or those claiming under them, were actually in the occupancy and cultivation of the said lands, at the aforesaid date of the treaty of St. Ildefonso.

The *second* section provided for the confirmation of all claims based upon a regular Spanish grant, concession, or order of survey, and actual settlement, in conformity with the laws, usages and customs of the Spanish Government, made *prior to December* 20, 1803, to the quantity of one mile square for each head of a family; together with such other and further quantity as heretofore hath been allowed for the wife and family of such actual settler; provided said claimant does not claim under the provisions of the first section.

The *third* section provided for the appointment of *three* "Recorders of Land-titles," viz: two in the territory of Orleans, and one in the District of Louisiana: the said Recorders' offices to be established respectively in the city of New Orleans, for the Eastern District, and in the village of Opelousas for the Western District of the Territory of Orleans; and the third in St. Louis, for the District of Louisiana.

The *fourth* section required all claimants to file for record in the Recorder's office of their proper District, all titles and claims to land held by them respectively, together with any other written evidence in support of said claims, on or before the first day of March, 1806, for the subsequent examination and adjudication of each.

The *fifth* section provided for the organization of a Board of commissioners connected with the Recorder's Office in each District, whose duty it should be to ascertain the *rights* of individuals and persons claiming under the aforesaid *first* and *second* sections of the act of March 3d, 1804. The Board of Commissioners in each District was composed of two commissioners well skilled in law, in conjunction with the Recorder, who also acted as commissioner.

[TO BE CONCLUDED NEXT NO.]

Art. IV.—AMERICAN WINES AND VINES.

THE author of the following letter—the second with which he has favored us and our readers—is Mr. Sidney Weller, of Brinkleyville, N. C. He has been a most successful producer, and is extensively known for his efforts to extend

(17) Land Laws of U. States—compilation of 1827: pp. 518-520.

the grape culture in our country, and more especially in the South. His familiarity with the wine manufacture, too, for many years, entitles him to be heard Mr. Weller comes out frankly and tells us that alcohol *must be used* in this process, whatever may be said to the contrary, and whatever the opposition of the Societies of the day, formed upon a basis of temperance, or of total abstinence. We are not disposed to controvert his position, nor have we sufficient facts; but there are those, doubtless, who will, if they can, for themselves: we are willing to leave the matter with them. Our object is to give all the information within our reach upon the general subject. ED. COM. REV.

IN a late communication on the Vine and Wines, for your highly valued Review, I omitted a passing notice of some things important to the complete success of the vineyard cause in our country. One was the proper soil for a vineyard. In every region of our country, native vines grow well, if the soil be not absolutely poor—and thrive well, if it be not exceedingly rich. In point of results, there is more danger of the soil being too rich than too poor. I have ever noticed that in rich garden spots and the like, qualities of vines that bear well elsewhere, will not bear at all, though of very luxuriant growth. Land that will bring good corn, is rich enough for vines. And the peculiar quality of the soil is not material to success; provided that, should it happen too much of one ingredient prevails, something of another be added; or if any one quality of soil be deficient, that it be supplied.

My vineyards (now about eight acres) extend over a diversity of soil—from the very light or sandy, to the heavy or clayey—but I have never perceived the taste of the grapes, or the quality of the wine, to be affected by the peculiarity of soil. As an experiment with the Scuppernong, I took an old washed piece of road, in which there was little else than clay, and planted small rooted vines 20 feet apart. Before planting, I supplied the holes with chip manure and surface earth, in small quantities. Afterwards, as the vines grew, I scattered around them rotten wood and other trash from the woods. The consequence was a fine canopy of fruitful Scuppernong vines, in flavor as good as any in my vineyards. A high and dry situation, and light soil, are desirable for a vineyard. There should be a southern exposure—though this is less important than the foregoing. There are other things absolutely necessary to complete success in vine culture, even more important still. Among these may be mentioned a loose condition of the earth during growth, and the prevention of the vines becoming bushy. For instance, I have never known a Scuppernong bear well and mature its fruit, if neglected in these particulars; and, on the other hand, I have never known one of the bearing kind in a soil not too rich, that, the above being observed, did not bear and mature its fruit well.

Vine-raising is a very simple and successful business, if as much pains be taken *each season* for *each vine*, as for a cotton or a corn stalk. The common error is neglect during the season of growth. Persons procrastinate attentions because a vine, like a cotton stock, is *not quite ruined* from the want of timely working one season. Nor is the vineyard an uncertain crop—like most other fruit, as the apple, &c.,—only every other season abundant. I have never failed, since my vineyards were established, in having an abundant crop. The

present season there were no apples or peaches, as a crop, in this region, through late frosts, but my vineyards were in general full. I entertained, for entrance fees, hundreds of gentlemen and ladies as visitors, sold quantities of grapes, am on my twentieth cask of wine, and am in the midst of making the Scuppernong.

It is indispensable to complete success, that *native vines* be adopted at first, as well as *American modes* of culture. Foreign vines will not answer for profit, or even for fruit, in our country; neither will native varieties that are subject to the tantalizing calamity of rotting on the vine when near the time of maturity. This misfortune is as discouraging to the vintner as the *yellows* of the silk-worm to the silk-grower, in versatile southern climates. But the Scuppernong especially, as well as other choice varieties, never rot—at least with me, and I presume with none—when properly attended.

There is a common complaint of American vintners that a portion of their wines are apt to spoil, or turn into vinegar. From private letters and otherwise, I have reason to believe that far more failures are made inwine manufacture than are publicly confessed. There is no necessity for losing a gallon, if a sufficiency of "keeping ingredients" are used. I have lost none in five years, though making more wine, perhaps, than any vintner in the Southern States. How simple is the process!—

1. Mash your grapes with the machines named in my last paper, or otherwise.

2. Press as in making cider.

3. Let the juice pass from the press through folds of woollen blankets.

4. Mix about a fourth, or if a strong wine be wanted, a third of good spirits, or three pounds of sugar per gallon—the doubly refined is best for a delicate wine.

5. Ton into a cask fumigated with a sulphur match, and store in a cool cellar until wanted, if even after a lapse of years.

If the wine be made with sugar, or with brandy and sugar, in some juice, it will be well (or perhaps necessary to keep from undue fermentation) to rack in eight or ten days—and again in same period into another fumigated cask. A fourth or third of brandy, being added, there will be no need of further process for a good strong wine. The foreign port wine contains always a third of brandy added to it before the voyage. This is celebrated for its medical virtues. The Scuppernong juice, with the same quantity of good brandy or rectified spirits of any sort, has as valuable medical properties, and is much more agreeable to the palate.

If a colored wine be wanted, fermentation after the grapes are mashed, must be had a few hours, or a time according to the depth of color desired—then let the keeping ingredients be added. If I wish my Scuppernong wine a red color, I mix some Muscadines or colored Scuppernong grapes with the white ones, and ferment them together after mashing, and before I press and ton the wine. If wine be not too far gone, or almost vinegar, it can be renewed or made good by adding spirits or sugar, or both, as I have tried in years past, and being left to stand awhile. I have made wine without any keeping ingre-

dients, by letting the grapes hang till shrivelled or dried almost to raisins. But this will not do for a rule, or a satisfactory, profitable business. Not only was the waste of grapes thereby very great, and the wine little, but the vines were greatly injured, and in some cases almost ruined for future bearing.

After all, what is gained in point of a pure liquor? Alcohol is even then generated by the process of fermentation, and the wine is still capable of intoxication by excessive use—and therefore is just as objectionable to some in point of purity, as if the alcohol in some form had been added. Or is the objection valid that any liquor, or any thing of alcoholic principle, is impure on that account? I opine not. Alcohol is one of the purest principles in nature, or in the chemical world, and the greatest preservative of purity, or preventative of decay, in many substances. It pervades, in benevolent Providence, as a sort of preservative principle, the vegetable world. If condensed or abstracted by distillation, it is still the creature of Providence merely in a condensed form. If abused in this form—like all other pure substances in nature capable of abuse—the fault is in the abuser, and not in the thing. Where, too, is it most liable to abuse—in wine, or in the form of ardent spirits?

Since the above was put into the printers' hands we have received the following equally interesting letter from Mr. Weller:—

PROFITS OF A SCUPPERNONG VINEYARD.

J. D. B. DeBow, Esq:

There is a maxim calculated to urge on every laudable enterprise or improvement among men, which I will repeat before stating the possible profits of a Scuppernong vineyard, viz: "whatever has once been achieved may be achieved again." Now, I know that 2,000 gallons of Scuppernong wine have been made per acre; valued at one dollar a gallon, and that $500 is an ample allowance for all expenses of making the wine; leaving therefore, $,1500 of clear gain. Can this be said of any other farming business? Not only this. The cause of patriotism, or American independence of foreign lands, for wines of dubious character as to genuineness and health, is subserved at the same time. Years since, or when about to commence my vineyard business, I visited a Capt. Burlingham, living in an adjoining county, who about a dozen years previously had removed from the lower part of the State, (where the Scuppernong is a native,) and had brought some of the vines along with him. He pointed me to his beautiful little vineyard of twelve vines only, but covering with canopy about a quarter of an acre, and assured me, (he was a gentleman above suspicion of other than strict veracity,) that from that canopy he had made 500 gallons of wine, besides partaking himself and allowing his neighbors to partake abundantly of the grapes for about two months. I know of two single vines in the lower part of this State, that produce each five barrels of wine yearly. This may appear incredible to some, but it is nevertheless true; and I might relate like instances in my vineyard. Mr. Herberment, late of Columbia, S. C., related in the "American Farmer," an instance of his Madeira grape producing at rates of more than 2,000 gallons per acre.

Some cannot credit the amazing productiveness of improved husbandry as to grain crops. When I once informed a neighbor that twenty barrels and upwards of corn had been made per acre, he declared it was impossible that so much could stand upon an acre at once.—So that $1,500 clear can be made by Scuppernong vines annually per acre, may appear utterly incredible to some. But it may appear still more astonishing if I assert that it is possible to make four times that sum, according to my calculation; for last winter I sold at Raleigh, to the best

judges of wine, the Scuppernong from one to four dollars per gallon. For instance, my Scuppernong madeira, a white sugared Scuppernong wine, at three dollars per gallon, and my Scuppernong hock, a red wine, at four dollars per gallon. Now, 2,000 gallons at four dollars is $8,000, and say 2,000 dollars for incidental cost of making, and $6,000 per acre is left as clear gain—2,000 dollars, a pretty high cost. But it must be recollected, that for the Scuppernong hock I put three pounds of doubly refined sugar per gallon, and take extra pains to make it. Now, the sugar at fifty cents per gallon is $1,000 dollars cost, and I think another $1,000 will cover the balance of incidental cost.

True, the above enormous profit of $6,000 per acre annually, is theory merely, as on any large scale, or even as large as an acre, as far as I know; but equally true that this theory is predicated upon facts as to a small scale: and that which has been done on a small scale in agriculture may be done on a large one.

Yours, &c.,

SIDNEY WELLER.

—

We regard the success of American vineyards as a matter of very great public interest, and are, therefore, disposed to promote it. To be successful, they should be sustained by a liberal patronage. A taste for American wines should, if possible, be induced. We are, therefore, disposed to give publication to the following closing communication of Mr. Weller, in relation to his vineyards:

BRINKLEYVILLE VINEYARDS AND NURSERIES,

A CONVENIENCE FOR THE SUOTH AND SOUTH-WEST.

Most Northern native, as well as all foreign grapes are apt to rot on the vine in the South. So Northern raised fruit trees are found not to answer expectations in the South; they either do not bear well, or fail to mature their fruit. Winter apples at the North become fall apples on trees transferred to the South. Near twenty years experience, as well as the best information, have induced the proprietor of the Brinkleyville establishment, (situated in one of the Southern States,) to declare the above, as well as to have prepared articles of sale in his line of business accordingly. He has selected what are considered the best grapes, as well as other nursery articles, from all parts of our country; and sells at prices in no case to exceed those of any other establishment of the kind, either North or South. But his articles in market are prepared especially for Southern latitudes, according to the best light of experience. For instance, of more than one hundred and fifty kinds of grapes, bearing in his vineyards and from which, last season, he made forty barrels of wine, besides entertaining hundreds of visitors paying entrance fees to partake of grapes, and buying quantities to carry away, rooted vines for sale of only about a dozen varieties, deemed good in every respect. And of these, by far the most well rooted vines of the *Scuppernong*, which are considered decidedly the best grape in our country, if not in the world, South of latitude about 37 1-2. The above "*rooted*" plants are the only kind, in common with all the Muskadine varieties, that will not succeed by cuttings. Tolerably large well rooted vines he offers at 25 cents each, as the medium price—or those of two years growth in the nursery—and larger or smaller at proportionate rates. Cuttings at rates of three and four dollars per hundred. Best American wines may be had at from twenty to ninety dollars per barrel, according to quality—well bottled or in kegs, proportionately. Casks, as well as bottles, put in boxes to prevent abstraction or adulteration in distant conveyances. Terms—cash remittances, or equivolent, before boxes forwarded. Any letters to him or to his agents, Peebles, White & Davis, Petersburg, Va., post-paid, will receive prompt attention. It is respectfully suggested that any order, so far as not definite, commit the selection of articles to the proprietor, who will take special care to give the full value of remittances, saving incidental expenses to first place of destination. At about two per cent. insurance for safe arrival, had, if desired, at Petersburg, Va., through the above house there; and then, in case of non-arrival, the money will be refunded, or another box forwarded

that, or next season for planting. But, heretofore boxes have arrived sooner or later to quite distant places of designation; for instance—a box of Scuppernong vines sent by *water* route to New York and New Orleans, some years since, to J. Noyes, Esq., Natchez, Miss., reached him in time to save most vines, though not forwarded till midwinter. Though the fall or early in winter is the safest time to forward vines for the distant South, Mr. Noyes reports his Scuppernong to have borne finely the second season after planting; and to have proved the finest grape in his vineyards at Holy Wood, near Natchez; and that the Scuppernong wine enclosed in the box as a present, was pronounced excellent by the best judges. By the same route two barrels of Scuppenong wine boxed, and bottles in corners of the boxes forwarded to John A. Binford, Granada, Miss., arrived in safety, and the contents were highly extolled by him and other gentlemen of high standing in that State. Last winter a box, by same course of conveyance, reached St. Louis, Mo., its place of destination. But, both in regard to timely arrival and certainty, early orders are desirable. Address the proprietor.

SIDNEY WELLER, M. D.,

BRINKLEYVILLE, Halifax county, North Carolina.

Art. V.—THE COMMERCIAL GROWTH AND GREATNESS OF NEW YORK.

POSITION OF CITIES; ORIGIN OF NEW YORK; EARLY HISTORY, ADVANCES, IMPROVEMENTS, POPULATION, RESOURCES, COMMERCE, PROSPECTS, &c.

THE growth of large cities depends upon the development of the mechanic arts and the facilities they possess for communication with tracts of country around them. The larger the extent of agricultural country which by means of avenues of communication, natural or artificial, can be brought into contact with a city, the more rapid will be its growth, and the greater the magnitude to which operating causes may carry it. While the mechanic arts and the business of exchange are unknown, it results from the regular and irresistible operation of a natural law, that large cities cannot exist. The condition of society would furnish neither the elements of their growth, nor of their preservation. The bulk of the population being agricultural—inasmuch as that food is the first necessary—is scattered over the face of the earth, regulated by the attractions of soil and climate. The supply of wants beyond those of food, must come from cities, either manufactured or imported there—and such cities will rise in localities fixed by the natural avenues of the country. It frequently happens that the fortunes of a city change through the discontinuance of the operation of causes from which its existence was derived—as in the case of a particular manufacture which will no longer find a market. But with the decline of that trade, another may spring up to sustain the existence of the city; as, for instance, a large manufacturing town in the interior of a country may lose its market for the article which gave it importance, but may have acquired commercial habits during its prosperity, and continue a depot for inland trade when its manufactures are no longer profitable.

The city of New York had its origin entirely in commercial interests. The discoverer, Henry Hudson, is said to have sold the title to the Dutch West India Company in 1609, and they located the first

permanent establishment—which was forcibly broken up in 1618 by the English South Virginia Company, who claimed the title under the discoveries of the Cabots. The Dutch having been re-instated in 1620, by order of James I., the growing importance of the place induced their Government to erect it into a province in 1629, under the name of New Netherlands. It retained this form until the Government of Charles II. took forcible possession in 1664. He transferred it by letters patent to the Duke of York—afterwards, as James II., driven from the English throne for his despotic follies. From him it received the title "New York." In 1673, when the Dutch ruled the ocean, entered the Thames and burnt the British shipping—at the moment Charles and his court were playing at romps at the house of the Dutchess of Portsmouth—New York passed into their hands. It was restored to the English by treaty in 1674. Through all these changes the colony preserved its commercial character. The causes of its origin had little analogy with those of other settlements. New England, Pennsylvania and the Southern States, had more the character of religious asylums for the oppressed, than New York—which was located purely by commercial adventurers, with a view to trade; and this distinctive character it has retained to the present day. The first charter of the city was granted by James II., April 22, 1686. The mayor, recorder, sheriff, town clerk, and clerk of the market, were appointed by the King, directly or indirectly; aldermen and assistants were chosen annually by the inhabitants of each ward. The corporation, styled "The Mayor, Aldermen and Commonalty of the city of New York," were authorized to make improvements, *but not to interfere with vested rights, but by consent of the owners.* In 1708, Queen Anne confirmed the charter and gave power to establish ferries. In 1732, George II. confirmed the charter with modifications. The city was made free, and the power of the corporation increased, particularly in respect to the right of making improvements without the limitation of assent of private owners, required by the grant of James. Since then, the changes in the city charter, by acts of legislation and by State constitution, have been mostly modifications of the charter of George II. The charter, as it now stands, is a singular illustration of the changes which have been wrought in the government of the United States, by their transition from a state of colonial subjection to national independence, and by the general progress of opinion throughout the country. It is a fabric of arbitrary powers resting upon a popular basis. Almost all the grants of English Kings have been retained; but in confirming and extending the authority of the municipal government, its organization has been subject to the popular principle of representation, and the citizens have, directly or indirectly, a voice in the election of officers. The most arbitrary and oppressive existing power, is that of taxing property *beyond its value*, for purposes of improvement. Did this not rest on forms of popular sanction, insurrection and revolution would be the immediate result. Another is the power of police justices to arrest and imprison an individual at their own discretion, without the form of trial by jury, for six months. That this extraordinary power exists, is the best proof that it has never been abused.

The police of New York has been rather remarkable for success in detecting, than for vigilance in preventing, crimes. There are few instances of a crime of any magnitude having been perpetrated, in which the actors have eluded punishment. Still, the city has had the reputation of having the worst police of any Northern city. Of late it has been organized on a new footing, which has been found four times as expensive, if not more efficient, than the old.

POPULATION OF NEW YORK.

The population of the city has progressed with remarkable rapidity. The aggregate numbers of the city and State, from remote periods, compare as follows:

	STATE.	CITY.		STATE.	CITY.		STATE.	CITY.
1696,	30,000	4,302	1790,	340,121	33,131	1830,	1,918,608	202,589
1731,	50,000	4,622	1800,	586,756	60,489	1835,	2,174,517	270,089
1756,	100,000	10,381	1810,	959,049	96,372	1840,	2,428,921	312,710
1773,	163,000	21,870	1820,	1,372,812	123,706	1845,	2,604,495	370,102
1786,	301,100	24,614	1825,	1,616,458	166,086	1847,*	2,674,763	394,457

Prior to the first regular enumeration of 1790, the figures depend upon uncertain date, but thus given as from the best authorities.

We have remarked that the origin and growth of New York have depended, in an eminent degree, upon commerce; accordingly, the ratio of increase of the population has always fluctuated with the course of events in regard to general commerce. Whenever the general trade of the country, from whatever cause, increased in magnitude, the resources of the city of New York, which early began to assume the character of a general market for the whole country, was brought into full operation. An increased demand for men and money arose, which was supplied rapidly from other quarters. The first great increase in the city population, was from 1790 to 1800—according to the ratio of which, the population would have doubled in twelve years. That decade was one of unexampled commercial prosperity. The old world involved in wars, was making constant demands upon the industry of the New; and the produce of the interior and of the neighboring States was pressing to the Atlantic, whence the shipping of New York carried it abroad and returned with goods for distribution. The amount of business transacted in New York wonderfully increased, and its attendant profits drew thither capital and men to participate in them. The decade 1800 to 1810, presented a change in affairs. More than half of that period was fraught with reverses. Captures, condemnations, embargoes and acts of non-intercourse diminished the capital of the place, as well as the profits. They discouraged enterprise, and the general depression of business relaxed the stimulus that had drawn numbers to the city in the previous decade. In the succeeding ten years, actual war destroyed the commerce that before languished. From 1812 to '15 foreige trade was extinct, and no principle of income was in operation. From 1815 to 1820, trade again revived; but the rate of increase from 1810 to 1820

*Estimated according to the ratio of increase in the preceding five years.

was far below that of any other decade—while the increase in the population of the whole State was more rapid than ever: a fact which, in an extraordinary degree, evinces the importance of commerce to the prosperity of New York. From 1820 to 1825, commerce was prosperous, and the population of the city swelled in proportion. This is to be remarked, however, that commerce did not recover the degree of prosperity it had enjoyed from 1790 to 1800—for the obvious reason that European wars had ceased, and industry and navigation had revived, to deprive America of the sort of monopoly she had previously enjoyed. In the year 1825, a new element of prosperity was brought into operation, in the construction of the Erie canal—which opened to the command of the city not only the agricultural products of the fertile valley of the Genesee, but also of the whole coast of the Northern Lakes. The prosperity growing out of this accession of wealth, added to the general speculative disposition apparent throughout the world, conspired to make New York the focus of financial and commercial operations; and from 1830 to 1835, the largest actual increase in numbers took place, which ever occurred in the space of five years. From 1835 to 1837, the speculative fever continued to rage, and the population of the city to increase. From 1837 to 1840, the revulsion took place—and with it a desire to leave the city for western enterprise returned. Farms which had been turned into building lots for paper cities, were again put under the plow. During the speculative mania real estate rose in price, and the Island was laid out in town lots to its utmost limits. Large quantities of goods were manufactured on credit for Southern and Western consumption; importations were immense, on credit, sales as large, likewise on time. All these operations gave employment to, and created a demand for, work-people, whom the high wages drew into the city. Business and capital also flowed thither; and the numbers of the people, as well as the sale of real and personal estate, rapidly augmented. When the revulsion took place, the reverse of this picture was presented: building stopped—real estate fell in value—large operations failed—people were thrown out of employ—and many left the city to seek, through the exercise of industry in the Western country, the fortunes they had hoped to realize in city speculations. The income from 1835 to 1840, was much less than in the previous term of ten years; and for the decade ending with 1845, the increase was something less than that ending with 1835. The growth of the city by wards since 1835, has been as follows:

CENSUS OF THE CITY OF NEW YORK.

WARDS.	1825	1830	1835	1840	MALES.	FEMALES.	TOTAL.
1st - - - -	9,929	11,331	10,380	10,629	6,549	5,681	12 230
2d - - - -	9,315	8,203	7,549	6,394	3,947	3,015	6,962
3d - - - -	10,201	9,599	10,884	11,581	6,449	5,451	11 900
4th - - - -	12,210	12,705	15,349	15,770	12,138	8,682	21 000
5th - - - -	15,093	17,722	18,495	19,159	9,501	10,861	20,362
6th - - - -	20,061	13,570	16,827	17,198	9,716	11,907	19,345
7th - - - -	14,192	15,873	21,481	22,982	14,239	16,607	38 846
8th - - - -	24,285	20,729	28,570	29,073	14,295	16,612	30,907
9th - - - -	10,956	22,810	20,618	24,795	10,010	10,983	20,993

WARDS.	1825	1830	1835	1840	MALES.	FEMALES.	TOTAL.
10th - - - -	23,932	16,438	20,926	29,026	13,339	13,920	27,259
11th - - - -	7,344	14,915	26,845	17,052	6,879	6,499	13,378
12th - - - -	7,938	11,808	24,437	11,652	10,750	11,661	22,411
13th* - - -		12,598	17,130	18,517	10,065	11,038	21,103
14th* - - -		14,288	17,306	20,235	8,142	11,310	19,452
15th† - - -			13,202	17,755	19,723	20,614	48,337
16th‡ - - -				22,273	12,556	14,591	27,147
17th§ - - -				18,619			
Total - -	166,086	202,589	270,089	312,712	180,365	190,737	371,102

There is now an Eighteenth Ward, constituted in 1846, from the others. The great increase in the population is in the up-town wards; and it has been promoted, or in fact made possible, only by increased facilities of locomotion.

Manhattan Island presents somewhat the form of a boot—whereof the toe is the Battery, and the heel Corlier's Hook, on the East River. Broadway runs from the Battery longitudinally, dividing the Island in nearly equal halves. On the East River side are the Bowery and East Broadway, forming two main arteries, through which the population circulates to the upper Wards. The Harlem railroad, commencing at the Park, one mile from the Battery, runs up Center street, through Bowery, continuing on the Fourth Avenue eight miles to the Harlem River, and forms a great artery for the city travel. About the year 1830, when the city had about half the population that it now contains, the difficulty of living at a distance up town, when nearly all the business is transacted in the triangle formed by a line drawn from East to the North River, at three-fourths of a mile from its apex to the Battery, was very great. That difficulty operated much against the growth of the city, and favored the growth of Jersey City and Brooklyn, across the ferries. About that time the Harlem Railroad was projected, and the omnibuses introduced. Thus a number of gentlemen doing business down town, employed a coach, at 12 1-2 cents each, to take them home to dinner. From that beginning the omnibus business has grown until this year the number licensed is 361, and the license money paid, $5,910. The capital employed is, for vehicles, $200,000; horses, $180,000; Harness, &c., £100,000; building, &c., $250,000. Total capital, $730,000. These omnibuses form eighteen lines, that run from all parts of the city to the Battery, bringing down thousands to their business, and thence diverging to all parts of the city in a fan-like form, running to Twenty-seventh street, which is 3 1-2 miles from the Battery. They, as also the Harlem railroad, take passengers this distance for 6 1-4 cents each. Those constitute the means of the increase of the city. They make the up-town lots available for the dwellings of those doing buisness down in town, and have therefore greatly raised the value of real estate in the upper parts of the city.

The streets are laid out irregularly below Fourteenth street. Com-

*These two Wards were constituted in 1826—the Thirteenth from the Tenth, and the Fourteenth from the Sixth and Eighth. †Set off from the Ninth Ward in March, 1832. ‡Taken from the 12th Ward in 1836. §Taken from the 11th, in 1837.

mencing with Fourteenth, they run two miles in straight lines from East to North River, and at equal distances from each other, being numbered up to 155th street, which is 9 3-4 miles from the Battery. Longitudinally, run ten Avenues from Fourteenth street to 155, being numbered from 1 to 10 from East to North River.

One of the greatest elements in the growth of New York, has been the development of the coal trade of Pennsylvania, which affords an ample supply of cheap fuel to meet the growing demand. Where wood is in common use as fuel, a great augmentation in price inevitably follows an increase in the number of the consumers, to say nothing of the demands of steamboats and factories. Forests are limited in their power of production: a large and increasing population will consume more rapidly than nature can produce; and the demands of an augmenting population upon new lands for agricultural purposes are constantly narrowing the limits within which the powers of nature are in operation. Old countries have, therefore, of necessity, penetrated the bosom of the earth, for those supplies which could no longer be found upon its surface. The importance of coal mines to manufacturing industry is quite as great—as there is no country of full population where furnaces, if dependent upon the productions of the forest, would not yield to such an extension of agriculture as would be necessary to supply its inhabitants with the means of subsistence.

About the year 1825, when the Erie canal was about to give such an impulse to the business of New York, the mining of the great Pennsylvania coal basin commenced a supply of fuel, which has become one of the most remarkable features in our national industry. The great coal valley of Pennsylvania is 60 miles long and 5 miles wide—covering 300 square miles, or 192,000 acres. The several mines discovered and probed amount in thickness to 70 feet—which, according to the usual estimate of coal, gives 119,000 tons per acre. If half of this region should be worked, it would supply an annual demand of 11,000,000 tons for 1,000 years!

This is the ample depot of fuel for the service of Atlantic cities, opened in 1825, when the export was 34,593 tons. There have been since constructed five great avenues to bring that coal to market, viz: the Lehigh canal, the Schuylkill, the Delaware and Hudson, the Morris canal, and the Reading Railroad. These five works cost, in round numbers, $28,000,000, and the quantity of coal brought down has been as follows:

	SCHUYLKILL. CANAL.	READING RAILROAD.	LEHIGH.	LACKAWANNA.	ALL OTHERS.	TOTAL TONS.
1830	89,984		41,750	43,000		174,734
1835	339,508		131,250	90,000		560,758
1840	452,251		225,288	148,470	39,365	865,444
1842	491,602	49,200	272,129	205,253	89,727	1,108,001
1847	130,142	1,256,567	635,015	352,144	228,986	2,702,857

Before the construction of the Reading Railroad, the Schuylkill canal had a monopoly, and the price in New York was held as high sometimes as $14 per ton—a price which greatly retarded the bringing of it into general use. When the Railroad was completed, it speedily

took the business, and now delivers one half the supply. By this competition the price was reduced, and at retail in New York varies from $5 50 to $6 per ton. It is now $6. At this rate the value of the product this year is $16,217,142: a large proportion of this fuel is consumed in the city of New York. It is manifest how great an influence the development of this trade has had upon the prosperity of the city.

As we have stated elsewhere, the population of New York is exceedingly diversified, and has perhaps less of national character than most other cities. Indeed, its floating population is largely supplied from immigration. The number of immigrants that have arrived in New York for four years, ending July 31, is as follows:

1843–4 - - - - - - - - -	51,307	1845–6 - - - - - - - - -	91,280
1844–5 - - - - - - - - -	70,330	1846–7 - - - - - - - - -	152,166

The whole number of arrivals for twelve years, was 855,360. The large immigration of the last year was mostly owing to the distress and famine abroad. Of the arrivals in 1846, 54,226 were from British ports; and in 1847, 88,733 came from the same quarter. The constant influx of strangers produces a mized population, inasmuch as that a large portion of each arrival remains in the city. Thus, according to the census of 1845, the nationality of the inhabitants was as follows:

Born in New York State, -	194,916	Born in Great Britain, - -	96,581
" " New England States,	16,079	" " France, - - - -	3,710
" " Other U. States, - - -	25,572	" " Germany, - - - -	24,416
" " Mexico and S. America,	508	" " Other places,	3,277

This gives a total of 365,059—which shows a discrepancy of 6,043 from the return in the above table. This arose from the fact that the returns of the 15th ward, as first made, were not received by the commissioner, and a re-enumeration was made of that ward, without describing the nationality.

This population, numbering in round numbers 400,000, now densely covers one-third of Manhattan Island—and, at the same rate of increase that has been carried on in the last 30 years, the year 1880 will find the whole Island densely settled to Harlem river, with a population of 1,200,000 souls. The increase of New York and Brooklyn, compared, has been as follows:

	New York.		Brooklyn.	
	Population.	*Increase.*	*Population.*	*Increase.*
1828,	123,706		7,175	
1830,	202,587	63,8 per cent.	15,396	114,6 per cent.
1840,	312,710	44,7 "	36,233	135,3 "
1845,	371,102	17,3 "	59,566	64,3 "

This great increase of Brooklyn, which has raised it nearly to half what New York was in 1820, has grown out of the fact that to be near business, and to escape the high taxation of New York on personal property, many persons do business in the city and reside across the ferry.

ASSESSED VALUE OF PROPERTY.

The value of property in New York has fluctuated greatly in those years of speculation and revulsion to the influence of which, on the prospect of population, we have alluded.

AGGREGATE VALUE OF ASSESSED PROPERTY IN NEW YORK.

1816,	$82,074,250	1827,	$112,211,926	1838,	$264,152,941
1817,	78,895,735	1828,	111,130,240	1839,	266,789,130
1818,	80,254,091	1829,	112,526,016	1840,	252,843,163
1819,	79,113,061	1830,	125,288,518	1841,	251,777,702
1820,	69,530,753	1831,	139,280,214	1842,	237,806,901
1821,	68,285,070	1832,	140,302,618	1843,	228,001,889
1822,	71,289,144	1833,	166,495,187	1844,	235,960,047
1823,	83,431,170	1834,	186,548,511	1845,	239,995,517
1824,	87,480,026	1835,	218,723,703	1846,	244,952,404
1825,	101,160,046	1836,	309,500,920	1847,	247,152,303
1826,	107,447,781	1837,	263,837,350		

This gives the taxable value for thirty-two years, from the close of the war, through all the vicissitudes of the revolution in 1820–'21, when the late United States Bank came near its suspension, the recovery of business and the impulse given to it by the opening of the Erie Canal until trade ran into the wildest speculation, carrying values to their highest point, in 1836. From that year as speculation subsided, valuations fell year by year, until 1843, when they reached their lowest point, at a fall of $81,499,031, equal to the whole value at the close of the war. Since 1843, the values have again been in advance. This recovery has been, however, altogether on the side of real estate, the valuation of personal estate having continued to decline. The mode of valuation, however, and the high rate of taxes imposed, have conspired to make the assessment a very uncertain criterion of the real increased personal property.

For the last few years a law has been in force requiring the valuation to be made in each year between the second Tuesday in May and the fifteenth of August; and giving to inhabitants who may at that season of the year be residing out of the city, the option of being assessed for personal property either in the city, or in the places of their summer residence. For several years past, the rate of taxation has been so high in the city, that these citizens, who are both numerous and wealthy, find it for their interest to pay their personal tax in the country, by which they make a saving, commonly, of more than one half. If they reside out of the State during the period between the second Tuesday in May and the fifteenth of August, the chance is, that they pay no personal tax any where.

The following table shows the relative increase of real and personal property with the annual taxation of the city, which includes the county:

ASSESSED PROPERTY OF NEW YORK CITY, WITH THE ANNUAL TAX LEVIED.

YEAR.	REAL.	FOREIGN GOODS. PERSONAL.	TOTAL.	TAXES.
1835, - - - - - - -	143,732,425	75,758,617	218,723,703	850,000
1836, - - - - - - -	233,742,303	74,991,278	309,500,920	1,085,130
1837, - - - - - - -	196,540,109	67,297,241	263,837,350	1,175,109

YEAR.	REAL.	PERSONAL.	TOTAL.	TAXES.
1838, - - - - - - -	194,543,359	69,609,582	264,152,941	1,151,130
1839, - - - - - - -	196,778,434	70,010,796	266,789,130	1,352,892
1840, - - - - - - -	187,121,464	65,721,699	252,843,163	1,376,289
1841, - - - - - - -	186,347,246	65,430,456	251,777,702	1,394,136
1842, - - - - - - -	176,512,342	61,294,559	237,806,901	1,498,630
1843, - - - - - - -	164,955,314	63,046,575	228,001,889	1,753,487
1844, - - - - - - -	171,936,591	64,023,456	235,960,047	1,988,818
1845, - - - - - - -	177,207,990	62,787,527	239,995,517	2,096,194
1846, - - - - - - -	183,480,934	61,471,470	244,952,404	2,520,146
1847, - - - - - - -	187,314,386	59,837,917	247,151,303	2,542,361

Thus we see that real estate has increased since 1843, which was the point of lowest depression, $22,359,072, and in the same time personal property has declined $3,200,000, while the amount of taxes has increased $788,875, thus throwing an enormous burden upon real estate. The aggregate taxation amounts to 102,8 cts. per $200 of valuation. This includes the State tax of one mill per $100, imposed by the law of 1842, to make good any deficit that might arise in the means of paying the State debt. In consequence of the deminished debt and the enhanced canal tolls, one-half this tax has been remitted and the remainder will be so. A new law has also been passed to make persons doing business in New York pay taxes on the capital employed here—a law that will have a tendency to restrain the growth of Brooklyn.

The business of the city has so improved during the past year, and with it the profits of trade have been so enhanced as much to lighten taxation. The following is a table of the foreign commerce since 1821:

FOREIGN COMMERCE OF NEW YORK.

CALENDAR YEAR.	FOREIGN ARRIV'LS.	TONS.	FOREIGN IMPORTS.	EXPORTS.
1821, - - - - - - - -	912	171,963	$26,020,012	$12,124,645
1822, - - - - - - - -	1,172	226,790	33,912,453	15,504,694
1823, - - - - - - - -	1,217	226,789	30,601,455	21,089,698
1824, - - - - - - - -	1,364	252,769	37,785,147	22,309,362
1825, - - - - - - - -	1,436	280,179	50,024,973	34,032,279
1826, - - - - - - - -	1,389	274,997	34,728,664	19,437,229
1827, - - - - - - - -	1,414	292,872	41,441,832	24,614,035
1828, - - - - - - - -	1,277	275,677	39,117,016	22,135,487
1829, - - - - - - - -	1,310	281,512	34,972,493	17,609,609
1830, - - - - - - - -	1,489	314,715	38,656,064	17,666,624
1831, - - - - - - - -	1,634	337,009	57,291,727	26,142,719
1832, - - - - - - - -	1,808	401,718	50,995,924	22,792,599
1833, - - - - - - - -	1,926	430,918	56,527,976	24,723,903
1834, - - - - - - - -	1,932	444,904	72,224,390	22,196,061
1835, - - - - - - - -	2,041	464,464	89,304,108	29,035,755
1836, - - - - - - - -	2,285	556,730	118,886,194	27,455,223
1837, - - - - - - - -	2,071	539,372	68,374,558	23,534,610
1838, - - - - - - - -	1,790	468,890	77,214,729	22,182,248
1839, - - - - - - - -	2,159	565,335	97,078,687	36,662,223
1840, - - - - - - - -	1,953	527,594	56,845,924	30,186,470
1841, - - - - - - - -	2,118	549,025	75,268,015	30,731,519
1842, - - - - - - - -	1,962	555,315	52,415,555	23,090,199
1843, - - - - - - - -	1,832	491,494	50,036,667	23,440,326
1844, - - - - - - - -	2,208	593,373	75,749,220	34,628,440
1845, - - - - - - - -	2,043	613,349	72,108,111	32,891,662
1846, - - - - - - - -	2,293	612,040	70,269,811	36,423,762
8147, 11 months, - -			93,862,440	49,786,441

The imports of the speculative year, 1836, the same in which the assessed value of real estate was the highest, were larger than ever

before. The year 1839 again presented a high figure, but the trade was of a speculative character, and ended in great revulsions. The business of 1847, in the aggregate, is, however, larger than ever before, the exports having swollen to a very important figure, reaching 50 per cent. of the imports. This has arisen from the great export of farm produce, which has been supplied in swelling volumes from that great source of commercial wealth, the Erie Canal. The progress of the receipts of produce from the canals for the last ten years has been as follows:

VALUE OF PRODUCE LEFT AT TIDE WATER FROM THE NEW YORK CANALS.

	Produce of the Forest.	*Animals.*	*Vegetable Food.*	*Other prod's.*	*Manufactures.*	*Merchandise.*	*Sundries.*	*Total.*
'37,	4,460,137	3,621,295	10,074,075	383,386	1,878,456	118,188	1,236,817	21,862,354
'38,	4,875,730	4,439,552	10,847,566	355,527	1,574,715	89,428	855,992	20,038,510
'39,	5,256,391	4,217,825	7,650,625	236,849	1,621,762	134,818	1,044,929	20,163,199
'40,	4,518,293	5,167,906	10,888,917	237,140	1,312,231	33,280	1,055,806	23,213,573
'41,	6,645,578	5,582,133	10,766,408	646,407	2,159,832	55,782	1,369,192	23,225,322
'42,	3,741,059	4,827,615	10,340,427	494,847	1,949,541	55,432	1,342,092	22,751,013
'43,	5,956,474	6,357,344	11,237,625	616,660	2,561,159	56,224	1,667,922	28,453,408
'44,	7,716,032	7,788,922	12,634,616	596,527	3,489,670	86,153	2,328,526	34,640,446
'45,	7,759,596	9,002,196	17,579,581	630,404	6,432,259	88,497	3,559,658	45,452,301
'46,	8,589,291	10,633,820	22,286,905	742,093	4,805,799	276,872	3,770,476	51,104,256

In these ten years it is observable that the materials of commerce derived from a work not in operation in 1825, have doubled, adding $51,105,256 to the value of articles which sought New York for a market twenty years previously. The accounts for 1847 are not yet made up; but the amount will far exceed that of 1846. The following shows the quantities of four articles that sought tide water in several years:

	1843.	1844.	1845.	1846.	1847.
Flour, bbls.	2,073,708	2,222,204	2,517,250	3,068,441	3,693,270
Wheat, bushels,	827,346	1,262,249	1,620,033	2,950,636	3,801,931
Corn, "	186,016	17,861	35,803	1,610,149	5,986,776
Barley, "	543,996	818,472	1,137,917	1,427,953	1,243,372
Bacon, lbs.,			965,200	2,034,600	3,562,030
Butter, "	24,215,700	22,576,300	21,709,705	21,194,030	22,653,861
Lard, "			3,097,067	7,317,966	5,237,460
Cheese, "	21,336,260	26,674,300	27,366,779	35,007,393	40,659,005
Wool, "	6,216,400	7,672,300	9,417,500	8,553,826	11,221,384

These large supplies of vegetable food, go to swell the external commerce of the city, and are capable of meeting almost any demand which the exigencies of Europe may require, while they furnish the means of paying for the large importation from abroad; they also create the credits in New York, through which the producers are enabled to pay for increased supplies of goods, both domestic and imported, received through the Erie Canal. The shipping interest of New York has progressed in the manner indicated in the following table:

	1833.	1836.	1840.	1843.	1836.
Registered tonnage,	123 052	192,030	203,536	236,970	259,242
Whaling, "	6,255	934		370	279
Steam, "					1,375
Total registered tonnage,	129,307	192,964	203,536	237,340	260,896
Coasting "	148,302	182,996	166,805	214,360	264,782
" steam "	13,113	19,681	34,754	35,317	45,182
" under 20 tons "	7,974	8,999	9,441	9,745	1,429
Codfishery " " " "	135	171	280	302	303
Total tons,	298,831	404,814	414,817	496,965	572,523

According to the laws of the United States, no vessel can be engaged in the foreign trade without being registered, and no vessel can be employed in the coasting trade without being enrolled or licensed. The registered tonnage, therefore, gives the amount engaged in foreign commerce, showing, comparatively, its progress, and the enrolled, the same in regard to the coasting trade. The shipping of New York is mostly employed in direct trade, while the carrying trade, so called, is mostly conducted by Eastern vessels. The business of navigation is in some degree distinct from that of commerce, inasmuch as the former may be carried on by a country that has no productions, while the latter depends upon surplus productions. Of this latter character is New York commerce, and it thrives most in those years in which the national exports are largest. Not until 1846 had New York any steam tonnage engaged in the foreign trade—the new line of Bremen steamers is the first enterprise of the kind, and the business of 35,000,000 Germans is by it brought in closer connection with New York. The steam tonnage engaged in the coasting trade has more than tripled since 1833. The tonnage engaged in the foreign and coasting trade appears to have progressed in each branch in nearly an equal degree.

In the progress of population, trade and value of property belonging to the city, it has necessarily resulted that the active monied capital has progressed also. To take the increased capital employed in all as a guide in estimating the amount of existing wealth, would be incorrect; for the reason that although insurance capital amounts to $31,000,000, it consists, for the most part, in bonds and mortgage upon real estate, and is, therefore, only a representation of the property already considered under the assessed values. In New York almost every species of fixed property, by means of hypothecation in one form or another, becomes circulating capital, which is constantly changing its form and yielding at every conversion a profit to its employers. In regard to calculation connected with the activity of commercial transactions, the amount of bank capital becomes a more direct guide. In 1826 there were fourteen banks in operation in the city, with an aggregate capital of $13,600,000, exclusive of the branch of the United States Bank, which was authorised to employ $2,500,000. At this time there are in New York twenty-five banks with an aggregate capital of $24,311,760, and the capital of twenty-three of these institutions is assessed as follows:

Owned in New York city,	$13,872,183	Owned by the State, - - -	271,704
" " " State,	2,052,453	" " foreigners, - - -	2,634,445
" " other States, - -	4,025,871		
		Total, - - - -	$22,856,659

The capital employed in banking at any one time is not, however, a precise indication of the activity of business, as thus—in November, 1843, the same capital was the basis of $65,314,129 which had loaned $80,278,529 in November, 1847, showing that the activity of business as indicated in the table of imports and exports, was one-third greater this year than in 1843.

The city of New York has a large debt contracted for the construction of the Croton aqueduct, by which the city is now supplied with

water. The Croton river is a stream of wholesome water running into the North river, and is tapped at a point called Croton lake, covering 400 acres and containing 500,000,000 gallons, by the aqueduct, at a distance of 33 miles from Harlem river. That whole distance is connected by an uninterrupted conduit of stone and brick masonry. The valley of the Harlem river is 1460 feet across, and the aqueduct is brought over in iron pipes, laid upon a bridge constructed of arches, 114 feet above high water mark, at Yorkville, or 79th street on 7th Avenue, 5 miles from City Hall. The pipes discharge into a reservoir 1826 feet long and 836 feet wide, having an area of 35 acres and a capacity of 150,000,000 gallons. From the receiving reservoir a double line of iron pipes, 3 feet in diameter, convey the water two miles, to the distributing reservoir, on 42d street. It is 420 feet square, contains 4 acres and has an elevation of 44 feet above the streets, and a capacity of 20,000,000 gallons. From this reservoir are led the serving pipes which supply the city, and are about 170 miles in length, or 1 mile to 2240 inhabitants. This will supply 35,000,000 gallons of water per day, or 24 gallons to each person when the population shall have reached 1,500,000. This stupendous work cost in the neighborhood of $14,000,000, and was undertaken by a direct vote of the people on the question—"water" or "no water." The water is supplied to dwellings at a general rate of $10 per head—besides 600 free hydrants and 1500 fire hydrants. The income of the water is specially pledged as a sinking fund for the redemption of the debt. The number of water takers in 1844 was 7171 private dwellings, paying $72,123, and 2421 public buildings and factories paying $59,660, making together 9582 takers, paying $131,784. In 1846–7 the number of takers had increased to 15,000 and the revenues to $194,561. The public debt created chiefly for this object is as follows:

PUBLIC DEBT, CITY OF NEW YORK, 1847.

		Annual Inter'st.
5 per cent. city stock of 1820 and 1829, due in 1850,	$250,000 00	13,500
5 do. fire loan stock, due in 1851,	500,000 00	25,000
5 do. public building stock, due in 1856,	515,000 00	25,750
5 do. fire indemnity stock, due in 1868,	375,088 00	18,754
Water debt, as follows:	$1,640,088 00	82,004
7 per cent. water loan stock, due in 1852,	890,207 00	62,314
7 do. do. do. 1857,	989,488 00	69,264
5 do. do. do. 1858,	3,000,000 00	150,000
5 do. do. do. 1860,	2,500,000 00	125,000
5 do. do. do. 1870,	3,000,000 00	150,000
5 do. do. do. 1880,	1,375,577 00	68,773
5 and 6 Croton water stock, due in 1890,	385,000 00	15,100
6 per cent. temporary water loan, before 1849,	757,910 00	45,474
	$12,898,182 00	767,929
Deduct proceeds of water stock in banks, to the credit of the water fund,	110,166 33	$12,788,015 67
Nominal amount of debt,		$14,428,103 67
Less stocks and bonds in sinking fund, from sales of real estate and revenues specially pledged for the redemption of the city debt and cash in bank, to credit of the fund,		$ 2,679,724 28
Actual amount of city debt on the 30th April, 1847,		$11,748,379 39

An ample sinking fund is in active operation to redeem this debt completely in a period of forty years. The expenditure of the city as indicated in the above table of annual tax imposed is, for 1847, $2,542,361—out of this $147,000 was for State tax. The leading general heads of city expenditures are—common schools $261,000, police $400,000, Alms House $343,000, interest city debt $767,000, lamps and gas $129,137, cleaning streets $135,000, water pipes $54,403, salaries city officers $233,000, and the balance for sundry expenditures.

The city of New York has paid much the largest portion of the State tax: as thus, in 1842, when the mill-tax was imposed, it amounted for the State to $619,693; of this, New York city paid $237,807—or two-fifths of the whole. The census of 1840 gave the State population at 2,428,921, and the city at 312,932—or one-eighth only of the population. The property owned by the city of New York consists of two descriptions, viz: property embracing town lots, common lands, quit-rents, and various real estate, valued at $2,638,682, and yields $64,240 per annum: city real estate, in use for city purposes—city hall, parks, grounds, schools, markets, &c., valued at $22,468,397, and producing $403,355 per annum, as follows:

	VALUE.	INCOME.
Available Property, - - - - - -	$ 2,638,682	$ 64,241
Not saleable, - - - - - - -	22,468,398	403,356
Total, - - - - -	$25,107,080	$467,597

Although New York, through force of geographical and external circumstances, has grown thus rapidly, there have been many causes in operation to retard its progress. These have grown mostly out of vicious legislation, general and local. In recurring to what we have pointed out in the fluctuation of the city's prosperity with the flourishing or decaying state of the external trade, it becomes evident the welfare of the city depends, in an eminent degree, upon the entire freedom with which capital in the shape of goods, produce or money can flow securely in and out to profit by the current state of events. New York holds a relation to the whole trade of the Union different from that of any other city—and also far superior in regard to it, than that held by any commercial city of Europe, in regard to the interior country. All the other cities of the United States are centres of local business. Mobile concentrates that of Alabama; Charleston of South Carolina, Georgia, and Baltimore of the tract watered by the tributary streams. Philadelphia looks mostly to her own State, having, however, stretched forth an arm through her canals to Western tracts. Boston is the common centre for New England business, and, well has she improved her local advantages by means of railroads—of which 700 miles open every remote section of the New England States and converge with in every trade and travel upon Boston—she has also greatly enlarged her connection with the West, by overcoming natural difficulties by means of the Western railroad. New York, however, by its canal, makes tributary the whole Northern and Western States, and her shipping commands the coasting trade to New Orleans. It is the point to which a large proportion of the surplus produce of the

country goes for sale, and whence it is exported to Europe. Two thirds of all the goods imported into the country arrive here. Under these circumstances it is necessarily the financial centre of the Union, inasmuch as that the largest number of importers are here. It is the market for bills drawn against produce sold abroad, consequently when produce is shipped to Europe from the South, the bills are sold in New York and become the basis of inland bills, which are again the medium in which dealers from all parts of the Union pay New York for goods bought of her. Where large amounts of goods, produce and bills come for sale, there is necessarily required large monied capital. New York has always had an insufficiency of this, and mainly because of absurd usury laws and laws discriminating against foreign capital employed here. The law of New York allows seven per cent. interest only, and forfeits a debt for taking a higher rate. Frequently, money is worth more, as for instance—when money is plenty and cheap considerable sums are employed in cotton, a hazardous trade; when money rises in value above seven per cent., it will not stay here to risk forfeiture, and New York business suffers. Cotton then goes to Liverpool, where the usury laws do not apply to it, and New York loses trade. Immense sums of foreign capital, loaned in good faith, have been lost by a plea of usury. Capital has also sought New York for employment in insurance, but for many years was driven away by a tax of ten per cent., to protect insufficient domestic capital. The tariff laws of Congress, which aim directly at that foreign trade on which, as we have seen, the prosperity of the city depends, have dealt severely with its interests. Another great evil has been the control which corporate banks has exercised over all commercial proceedings. They frequently sacrifice commercial interests without reason and without remorse.

In none of the cities of Europe are the commercial interests in the power of banks; the bulk of the business of discounts and exchange is done by large private bankers, men of great information, unceasing application and untiring industry. These persons have a profound knowledge of all that concerns commerce and finances. They know all their customers personally, their wants and their business. They are the *finance clerks* of the commercial community around them and are identified with its interest. In New York a number of incorporated banks with interests antagonistic to the commercial community, are conducted by salaried officers, for the most part destitute of scientific knowledge, of very moderate abilities and loose business habits. These persons lend freely at one time, and at another, under the influence of panic and vague fears, they begin to harrass each other for specie balances, refuse all loans, and throw the commercial community into a paroxysm of distress, causing produce to be sacrificed, advances to cease and the whole chain of business throughout the country to be deranged; being utterly unable to assign any better reason for the panic than their own thoughtlessness and want of foresight. Such is pretty nearly the case at this moment. In August, 1847, the bank loans were $80,746,671; on the 20th of that month news arrived of the failures in England with most gloomy prospects, causing considerable discredit in relation to bills. Packet after

packet brought similar tidings, and November 1st found the bank loans $80,558,529. In these two months of disastrous news the banks had made no preparations to meet a reverse. In the first week in November they got alarmed and suddenly refused all loans—causing great distress and large losses in sacrificing cotton, produce, goods and stock to raise money. Such follies as this are never committed by private bankers. They do not lull the community to sleep and destroy them when a fit of delirium tremens comes over them. This abominable mismanagement of money affairs has been a great drawback upon the prosperity of the city. The abolition of the usury laws, the removal of all disabilities of foreign capital and the substitution of private bankers for miserable corporations are only requisite to make New York the chief city of the world. The petty institutions with their small ways answered when New York was in its infancy, but she has now outgrown them, and moves like a giant oppressed for breath. The discredit which has overtaken English merchants and the waning influence of London, point to New York as the future queen of commerce.

Art. VI.—J. P. BENJAMIN'S ADDRESS ON AGRICULTURE.

The following paper was prepared by our distinguished fellow-citizen, J. P. Benjamin, Esq., to be delivered according to invitation, before the Agricultural and Mechanics' Association of Louisiana. The annual meeting of that Association having been postponed to a period when it will be impossible for Mr. Benjamin to attend, he very kindly, at our request, furnished it for publication in the pages of the Review.—EDITOR.

On the receipt of the invitation with which I have been honored, to deliver your annual address, I could not mistake the motive which prompted your selection, and felt satisfied that it was your desire to hear an account of what during a recent visit to Europe, had suggested itself to one having a common interest with yourselves as most worthy of attention, or as likely to afford instruction in your pursuits. I will therefore, endeavor to meet your wishes by a simple narrative of what I have learned, either from personal observation or from works to which you may not yet have had access.

But first allow me to remark, with a just sentiment of pride, that nowhere, during a somewhat extended excursion through the middle and South of France, did I witness any cultivation on a large scale, with which I would be ashamed to compare the estates of our best planters, whether of sugar or cotton. True it is, that no one can travel through the older countries, where wealth is so unequally distributed, without being compelled to pause with admiration and delight on some lovely landscape, where nature's choicest gifts have been enhanced in value and in beauty by the cunning hand of art; or where lavish expenditure guided by exquisite taste has succeeded in converting even the most barren soils into parks and gardens and pleasure grounds of surpassing charm. But for skill in cultivation, system in management, economy in administration, combined with a liberal expenditure

in improvement, both agricultural and mechanical, and a judicious application of labor saving devices, it has been my good fortune to have witnessed on the estates of some of the gentlemen of this association, models of plantership which would advantageously compare with any thing that I have seen amongst the farmers of Europe.—Whilst in the spirit of enterprise, in the desire for progress, in the ardent pursuit of improvement, which all characterise our intelligent agriculturists, you are as a class, immeasurably their superiors.

It will be obvious, that any information to be acquired abroad, can but remotely affect the interests of one of the two great classes of the planters of our State. No cotton is grown in Europe, nor has the science of European savants or the skill of European mechanics been directed in a manner worthy of notice to the improvement either of the plant or its preparation for the market: and with but one exception, I fear that what I may have to say, will afford but little interest to the gentlemen engaged in that culture.

But, gentlemen, there is an application of the power of steam which deeply interests the agriculturalists, not only of this State, but of all countries. Ever since the genius of Fulton first launched the boat that ploughed the opposing water with steady impulse and resistless power, the splendid results that would follow upon a similar conquest on the land, have excited the imagination and stimulated the ingenuity of the inventive minds of all countries. Indeed, if we reflect on the immense expanse of the richest soil which in our country awaits nothing but the application of such a vast labor-saving machine as a convenient and effective steam-plough; whether on the alluvial plains of the South, capable of supplying half the globe with its sugar, or clothing millions with its cotton—or whether we picture to our minds the boundless prairies of the Northern portion of this great valley, ready to furnish to the whole family of man grain in such teeming abundance, that the navies of the world would not suffice for its transportation, it seems scarcely possible to overrate the benefit that will be conferred on mankind by him who shall first teach it to till the ground by the power of steam. It would serve no purpose to enumerate the many abortive efforts made to accomplish this end. Numberless have been the devices suggested. Occasional experiments have promised success, and been abandoned. When the effort has been made to attach the plough to the steam carriage, the great weight required in such carriage for affording a fulcrum when the share enters a tough or clayey soil, has proved an insuperable obstacle, independently of the other formidable mechanical difficulties in the way of ensuring a steady and uniform motion at the volition of the engineer, and of preventing the plough-share from being suddenly and violently diverted from its path on meeting any obstacle in the soil. When it has been attempted to render the steam-engine stationary in a measure, and to apply its power by connecting with it the plough by a chain or rope, and then drawing the plough from one end of the furrow to the engine at the other end: other and still greater objections were presented, and all hopes of success had for years past apparently been abandoned.

Such, so far as I have been able to learn, was the situation of this interesting problem when it became the subject of discussion about

twelve months ago, at a dinner party of gentlemen in Paris, who had just been in attendance at an agricultural meeting. Amongst the guests present was one who was neither engineer nor mechanic, but who had received that early education in the physical sciences deemed necessary as a preparation to the practice of the medical profession, for which he was destined. He had taken no part in the conversation, but remained an eager and silent listener, except to ask some question of those persons most familiar with the history of the abortive experiments already attempted. He left that convivial meeting with the secret but determined purpose to devote all the leisure moments of a lifetime, if necessary, to the solution of this mechanical problem; and in ten months afterwards announced his conviction of success. In narrating the course of thought which led to this result, he was singularly interesting. He commenced by asking himself what was the object and purpose of the act of ploughing the soil? certainly to subdivide and render it friable; to turn under the surface and replace it by the subsoil, thus exposing the latter to that atmospheric and solar influence which both thoory and experience point out as so eminently beneficial, and finally to perform on a large scale the weeding process when the nature of the case would permit it. The next question was, why to do this labor is it necessary to draw a ploughshare through the soil? is there no other mechanical contrivance by which it can be lifted up and turned over? how does the gardener proceed in small enclosures not admitting of the working of a plough? it is by the spade, which performs its work in a manner to adopt the soil to the very nicest and most delicate culture. Proceeding on these considerations, he constructed a small steam-carriage, between the wheels of which he placed a cylinder which revolved on its axis. On the surface of the cylinder he placed small blades similar in shape to the hoe, and which he distributed in rows on the surface in a manner similar to that in which the teeth of the harrow are arranged, so that in turning the cylinder the blades of each row would strike the earth in the spaces left untouched by the preceding row. He used great ingenuity in so arranging his carriage, which runs on wheels of broad tread, as to enable him to turn it in a space not exceeding that usually reserved for turning-rows in the field, and the blades on the cylinder were so arranged as to be lengthened and shortened at pleasure for deep or light ploughing. As may be imagined, in a first essay many difficulties suggested themselves requiring alterations and changes in his machinery, and it was a mere piece of patchwork, of very little strength and clumsy appearance when all its parts were so arranged as to satisfy him of its success. In this imperfect state the carriage was sent for experiment in September last to the park of the Marquis of Nicolai, near Paris, and in order at once to put it to a severe test, a piece of stiff and clayey ground was selected, covered with a thick turf, the roots of which formed a heavy network on the surface. It was discovered that from some defect in the boiler steam could not be generated nearly as fast as required, yet, under all these circumstances two acres of the ground were ploughed or rather worked in such mannner as to create the utmost satisfaction amongst those called together to witness the experiment. The action of the instrument was such as to give the

earth left behind it the appearance of a field not only ploughed, but harrowed: it was turned in as small a space as is usually required for turning a plough: it was stopped, backed, slackened or hastened in its movements at the will of the conductor: the ground was ploughed to various depths as desired by the spectators, the rapidity of advance being of course lessened in proportion as the depth increased: and no single objection to its mode of work was suggested by any of the scientific agriculturists called to judge the machine, which in its imperfect state and with much less than its proper strength and power, had done, according to the closest calculation, the work of six heavy ploughs, and was easily susceptible of doing double the quantity in the same space of time. I had not the pleasure of witnessing the experiment, but was informed by an eye-witness of the result, and afterwards saw a most flattering account of the success of the machine in the "Moniteur Industriel." The inventor had taken out a patent, and was engaged in having a new instrument constructed with care, and of sufficient strength and power to stand tests much severer than the one to which the first was submitted; and although it may be too soon to say with certainty that human intelligence has made this great conquest in mechanical art, I think you will agree with me that there is every reason to believe that the course of invention has at length assumed the right direction, and that the original idea on which the work has been constructed, is one so simple and so evidently applicable to the object sought for, as to assure us of the ultimate attainment of that great desideratum for the agriculturist, a machine that shall plough and weed by steam—a machine adapted to do this work on all surfaces on which a carriage could run, and on all soils except such as may be covered with stones or stumps.

The chief object of inquiry abroad for any one interested in the agriculture of this State, is evidently the manufacture of sugar; and it was to this subject that my attention was particularly directed. No observer can fail to remark the great disparity which exists in the means for instruction and improvement which prevails between the manufacture of cane sugar in this country and beet-sugar in France. Paris may fairly be considered as the great centre of the civilized world, as regards all subjects of scientific inquiry; and I am not aware that in any other country have the researches of men of science been so ardently and extensively directed to the practical application of the discoveries of the laboratory to the improvement of manufacturing industry. Those engaged in the manufacture of sugar have been peculiarly favored in this respect, and ever since the project of Napoleon for rendering France independent of the colonial production of sugar was first carried into operation, all the rewards of a powerful Government and all the honors to be attained in a community attaching the highest value to literary or scientific distinction, have been lavished on those whose researches and experiments have enabled the manufacturer to apply on a large scale those improvements in the different parts of the process which the chemist first essays in the careful experiments of his laboratory. The men who conduct their manufactories and refineries are in very many instances carefully educated with a view to this pursuit, and only enter into the practice of their

art after being intimately acquainted with its theory in all its branches. With those principles of physics and mechanics which will enable them thoroughly to understand the working of the machinery employed, and with those discoveries of modern chemistry which can best enlighten them as to the real nature of the delicate and beautiful process by which a darkly colored and impure fluid is converted into a chrystaline product of snowy whiteness, sparkling grain and perfect purity. The advantages possessed by such men, surrounded by all the means and appliances of advanced civilization, with ready reference on all subjects of doubt or difficulty to men of eminent scientific attainments, and with every facility for obtaining at the cheapest rate, the supply or repair of machinery and material of every kind, over the indolent or ignorant colonial planter, or even over our own more intelligent agriculturists are inappreciable. The practical results of these advantages has never been more apparent than within the last few years. The beet-sugar manufacturers, employing a raw juice containing chemically only twelve per cent. of its weight in sugar and so impure as to render the extraction of this small proportion a process requiring great care and skill, had obtained so marked a superiority over the colonial planter, who operates with cane-juice, which is comparatively pure, and contains more by one-half of saccharine matter, that the loud complaints of the latter extorted a legislative enactment avowedly intended to destroy the beet-sugar industry, and establishing a scale of duties deemed sufficient for effecting that object. The only consequence of this enactment, however, was to stimulate the ingenuity and enterprise of the European competitor to such an extent that by his superior skill and intelligence new progress was made in his art, and in the last year the quantity of beet-sugar produced in France was equal to the whole amount of importation of colonial sugars, each being equal to about 150,000 hogsheads. We can scarcely conceive, accustomed as we are to the routine of our sugar-houses, how ardent is the spirit of inquiry and how prompt the practical testing of any scientific discovery bearing upon this subject. A striking proof of this will be found in the following fact. In the weekly accounts published of the sittings of the Academy of Sciences, in February, 1846, was a paper submitted by Mr. Mialte, in which he stated that in the course of his researches he had discovered that oxalate of alumina possessed the quality of neutralizing any excess of lime that might be used in defecation, and that by employing it the yellow color imparted to syrup by the use of lime would be prevented, and the syrup being colorless would chrystalise into white sugar. In March, April, May and June of the same year, there appeared in the "Moniteur Industriel," a semi-weekly publication devoted almost exclusively to the manufacturing and agricultural interests, no less than four articles from sugar manufacturers and refiners, who had made experiments with this new agent on a small scale, and who, while they certified to its efficacy, demonstrated by calculation that it was unsuited for practical purposes, because the cost of the oxalate in the quantity required during the process would be too great to render its use profitable.

I fear, gentlemen, that though much has lately been done amongst us in the way of improvement, we are still far in arrear, and that we

shall still remain so unless that noble spirit of emulation, which it is the object of your Association to cherish, shall prompt us to cease regarding our manufacture as a mere process of routine to be acquired without previous careful study, and, especially, without endeavoring to attain an acquaintance with at least those general elementary principles of Chemistry, of which our sugar-houses show us the application on a large scale; but I trust the day is not far distant when our planters shall be able to speak as familiarly of acids and of alkalis and their secular properties, as they now do of the high or low pressure steam engine, of the fly-wheel and the safety-valve; for it is assuredly not more important to understand the machinery for the extracting of the juice from the cane, than fully to comprehend the best modes for converting that juice into the marketable product, sugar.

The different stages of the manufacture of sugar as practised in France, are no doubt familiar to most of you, and do not differ essentially from those used on the plantations in this State, which have lately been furnished with the apparatus of Derosne and Cail and that of Rillieux. The whole process of the manufacture may fairly be divided into, 1st, The extraction of the juice from the beet or cane: 2d, The defecation or clarification; the object of which is not merely to cleanse the juice of all feculencies which may be mixed with it mechanically, such as the particles of the pith, the rind and the wax, which become mingled with it in its passage through the mill, but also to separate from it the albuminous and gummy matters which are in solution in it, and the separation of which, whether in the form of a scum or precipitate, is a purely chemical process: 3d, The filtration: 4th, The evaporation: and 5th, The concentration of the syrup to the degree of density required for chrystalization. Independently of information obtained abroad, I have recently received much instruction from two very valuable works, which you have not yet had an opportunity of perusing, and I have no doubt you will feel interested by a statement, although necessarily brief, of what I have gleaned on each of these heads. I will first state that the two works to which I refer are the Sugar Planters' Manuel, by Dr. Evans,* published in London in 1847, and of which a reprint is now in course of publication in this country: and the Report made to Congress at its last session by Professor R. S. McCulloh, containing investigations in relation to cane sugar made in Louisiana and Cuba; and I feel no hesitation in saying that no gentleman who will peruse attentively these two works will fail in attaining all the really valuable knowledge on this subject that has been acquired up to the present day.

The first great object of the planter who is about to manufacture the crop which forms the whole return for the labors of the year is, undoubtedly, to extract from the cane all the juice that it contains. Unfortunately, no means have yet been devised by which this end can be completely obtained, and the begass as it leaves our best constructed mills carries with it from one-third to one-fourth of the juice. However improbable it may appear, it is nevertheless certain, that the fluid con-

* This valuable work was analyzed and examined in the numbers of our Review for October and November, 1847.—Ed.

tents of a cane forms from 88 to 90 per cent. in weight of the entire structure of the stem, and I have taken some pains to ascertain during the present season the yield of juice from our mills of ordinary construction. I found the yield from the three roller mill of average size and run at a speed of 3 1-2 revolutions per minute to be sixty-one per cent whilst from another of very large size, of which the rollers were 5 1-2 feet in length and 28 inches in diameter, and which was run at a speed of only two and a half revolutions per minute, the yield was 66 per cent, the bagass being delivered from the latter almost pulverized and apparently dry. These results are undoubtedly much more satisfactory than would have been afforded some years ago, still they show that after all the care bestowed in raising our crops from one-fourth to one-third of our produce is absolutely lost; and if we take what I believe a fair average of the yield of juice in sugars, that is, if we assume that one-tenth of the weight of the juice is the product in chrystalized sugar, we find that we obtain only about 6 1-2 per cent. of the weight of the cane in sugar, whereas chemical analysis shows that it contains 18 per cent. One great cause of the diminished yield of juice from the cane is undoubtedly the practice too prevalent of running our mills at too high a speed. Experiments made in Cuba demonstrate that with the same mill and its rollers set in the same way the juice obtained constituted 45 per cent. of the weight of the cane when the rollers made six revolutions per minute, and 70 per cent. when the speed was reduced to two and a half revolutions per minute, showing the enormous difference of twenty-five per cent.

The very spongy consistency of the pith of the cane presents an obstacle to the extraction of all its juice by compression that is apparently insurmountable, and the very interesting inquiry at once suggests itself; are there no other means by which *all* the fluid contents of a cane can be obtained? That this can be done on a small sclae in the laboratory is well known, but the difficulty is to effect the object on the large scale and with the rapidity required on a plantation during the grinding season. A patent was taken out in England not long since, by a Mr. Michiel, for extracting the sugar from the cane by an entirely new process thus described and commented on in the Sugar Planters' Manuel:

"It consists in cutting the canes into extremely thin slices and then submitting them to the action of a mixture of lime and water which it is presumed will coagulate and render insoluble the whole of their nitroginised constituents; thus permitting the extraction of the whole of the sugar with the soluble salts by means of water.

"*Were this process as practicable as its admirers seem to think, it ought unquestionably to be universally adopted; for I believe were it* SKILFULLY CARRIED OUT, *almost the whole of the saccharine matter in the cane would to a certainty be extracted.* It remains to be seen, however, whether it is really so practicable, or whether its application would be sufficiently cheap. I much fear that the circular knives by which the canes are to be sliced, if we may judge from what occurs in the slicing of the beet root, will be subject to continual derangement and their edges blunted by the silicious coating of the cane. It may be doubted whether the operation will prove a sufficiently speedy one

to admit of its adoption on large estates. The amount of evaporation demanded would also be great. This, it is true, may be obviated by placing the canes thus sliced in a succession of boxes having perforated bottoms and placed one over the other in such a manner that boiling water poured into the upper one will gradually percolate through each of the subsequent ones, and thus by robbing the canes successively of the greater portion of their sugar the saccharine liquid will gradually become more inspissated as it descends, until, when it comes away from the lowest box, it will have assumed the state of a syrup of considerable density.

"I offer the above remarks partly because I think that this system presents much that is admirable, nevertheless, like many others, it requires the touchstone of experience."

This process of extracting the juice from the cane is termed maceration, and is also the subject of remark by Professor M'Culloh. He found amongst the constituents of the cane two gummy matters, one of which is called by chemists pectine and the other albumen. Pectine is probably the most viscid substance in nature, and, consequently, the most formidable adversary to chrystalization. The Professor teaches us that maceration in hot water will fix the albumen in the cane, but that the pectine will flow out of it with the saccharine juice, and its separation from the juice then becomes extremely difficult if not impossible. Where, however, we macerate in cold water, the pectine remains in the cane and the albumen flows out with the juice, which is then very easily and perfectly defecated by heat which coagulates the albumen and causes it to rise in a scum to the surface of the juice. For these reasons he disapproves of maceration in hot water, and objects to that in cold water by reason of the increased quantity of fuel required for the evaporation.

Having thus stated the opinions of the very able writers on this subject, gentlemen, allow me to inform you that I have from reliable authority ascertained that the process of Michiel has actually been put in operation on a large scale in the Island of Martinique, and with great success, and has there caused a yield of from 11 to 12 per cent. of the weight of the cane in sugar, on estates which had previously produced but six and a half per cent. I have not learned whether the maceration is with hot or cold water, nor whether if with the former, the sugar is deliquescent by reason of the presence of pectine in the juice. My object in stating these facts is to stimulate the ingenuity of those members of the association who have devoted their attention to the mechanical arts. It surely is a matter perfectly attainable by the proverbial ingenuity of the American mechanics, to devise such a slicing apparatus as shall receive from the carriers and cut the cane as fast as it is now received by the rollers that crush it, and as regards the loss of fuel in evaporation a very simple arrangement would readily obviate that objection. If the water be raised to a level above that of the cisterns which receive the sliced cane a series of these cisterns may be placed side by side with pipes running from the top of each to the bottom of the next. The water would enter the first by a pipe running to its bottom from the reservoir, and as the level of the water in the reservoir would be higher than that in the cisterns the water

rising through the first would overflow into the second, and from that to the others in the same manner. It would then flow out at a density fully equal to that of cane juice and probably much greater. The effect of such an arrangement would be not to mix water with the juice so as to dilute it, but to displace the juice by water in each successive cistern. The cisterns would of course require to be covered and a *pese sirom* of *Beaume* might be inserted into the top of each, which would plunge in the fluid and indicate when the saccharine matter had become exhausted by gradually sinking to zero. It would not be difficult so to arrange by cocks and connections with pipes that the water could run from the reservoir directly into any one of the cisterns, and so that it should run out of that last filled with the fresh slices of cane. If an apparatus on this or similar principles could be carried into operation on a large scale, a scale sufficient to take off the crop of the most extensive plantations, its results would be enormous: the whole sugar crop of the State would be at once doubled, and the inventor would reap the richest rewards for the time, labor and talent expended in perfecting it.

On the next process in the manufacture, that of defecation, I have little to offer that is novel. I may, however, observe that a considerable quantity of an ingredient of which the composition is a secret has been imported into the State by our enterprising fellow-citizen, Alexander Gordon, Esq., and is now undergoing the test of experience on a large scale on his plantation. It is afforded at a cheap rate, and if it succeed in replacing the lime which imparts so obstinate a yellow tint to our syrups, as its inventor feels confident that it will, another great step will have been made in our march of improvement towards the perfection of the manufacture.

The filtration of the syrup through bone black, next claims our attention. The use of animal charcoal has exercised an influence on the manufacture of sugar during the present century inferior to that of no other discovery, not excepting even Howard's invention of the vacuum pan. The only objection suggested to its use, viz: its cost, was obviated when Dumont showed by his filters that it was not necessary to employ it as a powder, which, when once used, ceased to have any value except as manure, and that if employed in grain its filtering and discoloring powers might be indefinitely prolonged by the process of revivification. Much talent and labor have been expended in devising the best means of economical and effective revivification, but I have heard of none so satisfactory as that by heated steam, which I saw employed on a very large scale at two refineries near Paris. The black is thrown into a heap after being used and allowed to ferment; it is then thrown into a cylinder, and steam heated to 750°. F., is driven through it. The steam is heated by being conveyed through pipes placed in a furnace so arranged as to heat them red-hot without the actual contact of the fire, which would otherwise soon destroy them, nor is this process at all attended with the danger which might be supposed to result from the great degree of heat imparted to the steam. The action on the bone black is at once to destroy, by combination all the organic matters absorbed into the pores of the charcoal during its use and the purgation of all impurities. The black

when taken from the cylinder is simply sifted, and is found then to be fully equal to new black, and one of the refiners stated that he considered it as constantly improving by this process. This mode of revivification is cheap, simple, and superior to any with which I am acquainted. The proper degree of heat in the tubes is very simply indicated dy dropping on them a metalic alloy, which melts at 750°. F. When the alloy begins to melt. the bone black is discharged, and a fresh charge introduced into the cylinder.

Here is one drawback to the use of animal charcoal, which I never have seen mentioned in any treatise on sugar, but which deserves some attention. Bone black absorbs out of its own weight of saccharine solutions a considerable quantity of sugar. In experiments in the laboratory a weight of saccharine solution equal to the weight of the black in the filtering tubes must first be passed through the black and then laid aside, and the subsequently filtered liquid is submitted to chemical tests: for the first liquid that passes through has lost a part of its sugar by the absorption of the black, and contains from five to ten per cent. less sugar than when poured into the filter. One Dumont filter contains generally from 2500 to 3500 pounds of bone black, and if one be filled afresh every day as is usual in our sugar-houses, the loss of sugar from this cause becomes worthy of some consideration, and some of the gentlemen of the Association who use the bone black filters may, perhaps, find leisure to make some accurate estimates on this subject by experiments on a large scale. I have not been able to do so myself, but shall take an early opportunity of satisfying my mind on the subject.

I shall now proceed to consider the subject of the concentration and crystalization of the syrup in connection with the mode of liquoring or refining the sugar by means of pneumatic boxes or *tigers*, as they are called. I am the more eager to address you on this part of the process, because justice to another requires it. In the report of Professor McCulloh will be found the following passage:

"Liquoring may be performed in pneumatic pans or *tigers*, but there is some difficulty experienced in the operation in consequence of obstructions if it be urged very rapidly. If at first the syrup be allowed to act simply by its own gravity, then the filtration be gently accelerated by a feeble partial vacuum, until it shall have drained freely, and finally, the air be drawn through the mass to remove syrup adhering to the crystals. I do not doubt that no difficulty will be experienced with pneumatic pans, especially if the operation be performed at a temperature of not less than 80°. F.

"When I was in Louisiana, Messrs. Benjamin and Packwood had tried unsuccessfully to overcome the above mentioned difficulty of obstruction; they have since succeeded entirely, and their present crop has been manfactured with Rillieux's apparatus and pneumatic pans, into liquid sugar of perfect quality. A specimen of this sugar presented to me by Messrs. Merrick and Towne has been analyzed by me and found *chemically pure*. Its crystalline grain and snowy whiteness are also equal to those of the best double-refined sugar of our northern refineries. To Messrs. Benjamin and Packwood must, therefore, be awarded the merit of having first made directly from a

vegetable juice, sugar of absolute chemical purity, combined with perfection of chrystal and color. This is indeed a proud triumph in the progress of the sugar industry. In the whole range of the chemical arts, I am not aware of another instance in which a perfect result is in like manner obtained immediately."

This is high praise, gentlemen, and comes from a high source, and I am, therefore, the more mortified in not being able to take my share of it. I believe it to be true, as stated by the Professor, that although the *tigers* had been successfully used in liquoring sugar already made, they never had been employed in receiving the liquid sugar as it runs from the battery and converting it into chrystals, until the experiment was made on the Beluchasse plantation, belonging to Mr. Packwood and myself: but the success of that experiment is to be attributed alone to my friend and partner Theodore J. Packwood, and I have no hesitation in saying, that any man not possessed to the full degree of his indomitable perseverance, long experience, and intimate knowledge of the behavior of saccharine matter under all the influences of temperature and varieties of manipulation to which it can be subjected, would have abandoned the experiment in despair, as being utterly hopeless. It was only after weeks of severe toil and intense application, that there appeared any prospect of ultimate success, and more than three-fourths of the first crop made with the tigers had been taken off before they were worked with that steady precision which proved that they could as surely be relied on in the manufacture of sugar as the ordinary moulds of the refiner.

I have stated that I would treat of the concentration of the syrups and crystalization of the sugar in connection with the working of the tigers, because it is only in that connection that I can offer you any remarks not to be found in all the treaties on the subject. It was well remarked by your distinguished Vice President, Judge Rost, in his interesting address, delivered to the association in 1845, that the vacuum pan has many decided advantages over all other concentrating vessels: that the sugar may be grained in the pan and that the granulation is completely under the control of the operator, who may accelerate or retard it at pleasure: who may carry it so far that sugar will not run from the pan, and may so conduct it as to increase almost at will the size and hardness of the crystals. All this is true; and it is also true, as he has stated, that the tigers cannot be used for sugar boiled in any other manner than in the vacuum pan. Allow me, then, to explain to you in what manner the tigers are constructed, how the sugars are to be boiled for being worked in them, and the mode of conducting the operation afterwards.

The pneumatic pan or tiger is an oblong box divided into two parts. A convenient size has been found to be eight feet in length and four feet in width. The two parts of the tiger are divided by a frame covered with cloth, made of copper wire, which forms a false bottom; the lower half is of cast iron and is about twelve inches in depth, with a slope from all sides towards the centre, at which point is a cock for draining off molasses from the sugar which is poured into the upper part and which is drained through the seive-like false bottom above alluded to. The upper parts is about sixteen inches in depth:

it is made of sheet iron or wood, with a ledge of about half an inch in width, running all round the inside at the line or junction with the lower half; this ledge serves as the support for the frame, which is also supported from beneath with a thin plank, set on edge, and running from end to end of the tiger: the lower part of this plank is scooped out in two or three places, so as to leave free passage for the drainage from all parts of the bottom to the cock at the centre. An opening in the false bottom is connected by a valve with a pipe running to the air pump that is worked by the engine that drives the mill, and another small opening connects with a steam pipe furnished with a cock by which the steam can be admitted, or shut off, at pleasure, and the use of which will be presently noticed.

The theory of the working of the tigers is seductive, from its exceeding simplicity. The pressure of the atmosphere being calculated at fifteen pounds to the square inch, if sugar be placed on the upper part of the tiger, and a vacuum created beneath the false bottom by pumping out the air every square inch of the surface of the sugar is pressed in by a weight of fifteen pounds, which is sufficient to drive through the false bottom all that is liquid in the mass, and thus leave the pure crystals above, they being too large and too hard to be forced through the meshes of the wire. In practice very great difficulties occurred: if the sugar was boiled *high*, as the sugar makers term it, the syrup became so viscid as to adhere to the crystals, and the pressure of the atmosphere instead of driving it through, had the effect of compressing the whole mass into one solid body, as hard as a loaf of refined sugar, and which could only be removed from the tiger by the aid of pick axes and hatchets, requiring immense labor and tearing to pieces the wire cloth, which is expensive. If the sugar was boiled *light*, as it is termed, nearly the whole battery would run through the false bottom, when the vacuum pan was discharged and the operation thus conducted would clearly be not profitable. It is, therefore, evident that the mode of boiling or crystallising the sugar in the vacuum pan is the most essential point for consideration as regards the liquoring in the tigers, and that this process can only succeed by obtaining from the battery a mass, composed of firm and large crystals floating as it were in a light and fluid syrup. This object can only be attained by great art in the sugar-boiler, and the mode of so doing is an application of the principles of crystallisation, which you will find stated with admirable clearness by Professor McCulloh, in his report. A description of the process would carry me too far, but I may state generally that the syrup is to be evaporated in successive portions, so that the crystals of each portion may form *nuclei*, which are successively enlarged at each fresh charge of syrup introduced into the pan: these successive charges of syrup are always small, and the fluidity of the mother-liquor of the crystals is preserved by the changes of temperature and destiny being kept moderate; whereas a rapid evaporation in mass of the syrup would be attended by a violent agitation, an absence of *nuclei* around which large crystals could form, and the result would be a small and confused grain totally unsuited for working in the tigers.

The sugar, when boiled to the proper point, flows from the pan into the tiger in a thick mass, composed of crystals floating in a fluid syrup, and being boiled at a low temperature, cools so rapidly that it frequently requires the assistance of the workmen to scrape it along the trough and accelerate its passage towards the tigers, unless the fall from the pan towards them is very precipitous. When received into the tigers it is allowed to cool for a few hours, during which time it has become thoroughly crystallised, the mother-liquor of chrystallisation has passed through the bottom and the whole mass is then as well purged as sugars made in the open kettles are, after remaining a fortnight in the purgeries. The surface is then removed and mixed with water so as to form a thick paste, such as refiners call a *magma*, and is again spread on the top of the tiger, which is allowed to drain for three or four hours—at the end of that time it presents a color equal to the inferior grades of white Havana sugar, but the crystal is larger and more beautiful. White syrup is then poured on it and the air pump is applied, which forces the syrup through: the syrup in its passage displaces the last pellicle of coloring matter that still adheres to the surface of the crystals and leaves the sugar perfectly white: the action of the air pump is continued for the purpose of drying the sugar in a measure, and at the end of twenty-four hours from the time when the battery was poured into the tiger it is shovelled out in perfectly pure white crystals, and thrown on the floor of a room heated by steam pipes, where the little remaining moisture is evaporated, and the sugar is then ready for market—the entire process, including the putting it into packages, requiring a period of less than forty-eight hours.

After the tigers have been used three or four times the meshes in the false bottom become clogged by the small crystals that are forced into them, and the steam is then let under the false bottom through the pipe before described; it melts these crystals, and with a brush, the workman in a few minutes has the bottom so cleaned as to be ready to receive a fresh battery. This pipe is also serviceable when through a mistake of the boiler the crystalization has been improperly conducted and a crust forms in the bottom; the steam may be used to loosen it, and thus avoid injury to the wire cloth.

Notwithstanding the perfection of the results obtained by this mode of liquoring and drying sugar, gentlemen, it is not to be recommended for adodption by any one who is unable to give to it his personal superintendence or to procure the services of an intelligent and attentive agent. It requires constant care and watchfulness, and any mistake in boiling the sugar, whether arising from ignorance or inattention, causes much trouble and labor. Sugar made from frosted or fermented canes, or from the unripe cane which is frequently cut from new ground, or from from land freshly manured by a crop of peas, could scarcely be worked in them at all, and in all such cases we have found it more profitable to put the sugar into hogsheads and allow it to drain in the purgery, in the usual mode. But when the cane-juice is pure and sound and from ripe cane. I have seen nothing equal to the beauty and economy of the process, when conducted with skill and care.

There are several other subjects, gentlemen, connected with our pursuits on which I had intended to touch, but I feel myself in danger of exceeding by far the limits usual on such occasions, and shall only advert to one more topic before closing this address.

The annual recurrence of early frosts for some time past, has occasioned much solicitude about the preservation of the cane, particularly in the higher latitude of the State, where the result of its cultivation has equalled the most sanguine anticipations of the enterprising gentlemen who have undertaken it. Experience has not yet demonstrated whether the severity of the cold is such as to destroy the germs remaining in the stubble, and thus create the necessity for renewing the planting every year, which would indeed prove a most serious drawback. But such inquiry having been awakened on the subject of winrowing the cane, I have thought you would feel interested in a fact which has reference to the subject, and which occurred at my own residence. About one-fourth of an acre of plant cane of the Creole variety was affected by the frost on the 20th November, 1846. The lower joints remained sound, but the upper part of the cane, about two-thirds in length of the entire stem, was sufficiently injured for all the eyes to be killed. The cane was in the garden and was winrowed two days afterwards, and from causes not worth mentioning, remained in the winrow untouched till the beginning of April. It was then taken up, and to my great surprise, was still sweet and sound. The frozen eyes had dried up into a black dust, which filled the cavity where each eye had been formed, but the injury was there arrested, the remainder of the joint had not fermented, and there can be no question that the cane would have made good sugar. This is an isolated fact, and I give it only for what it is worth; but when we consider that the plant Creole cane is the most tender of all, and that its leaves form a much less perfect covering in the winrow than the broad leafy tops of the riband cane, there is certainly reason to believe, that if cane be always winrowed in the state above mentioned, (and the first frosts rarely affect it more,) there would be no danger of loss of crops, and the injury inflicted by the frost would be confined to the extra labor which the winrowing requires, and a somewhat diminished yield by means of the partial drying of the cane.

In conclusion, gentlemen, allow me to pay the well merited tribute of respect due to your Association. It is to your efforts that is mainly to be attributed that spirit of enquiry, which has lately aroused the agriculturists of the State from the lethargy into which for so many years they had sunk.

On all sides evidences of improvement are becoming conspicuous; and, although much still remains to be done, although in many matters our culture and manufacture are still in their infancy, yet no long period shall elapse ere you will witness with pride and pleasure, the progress which you have stimulated into active development, and will feel that you have the right to make that boast which is the proudest triumph of the modern patriot, as it was of the ancient Roman, that you have deserved well of your country.

Art. VII.—THE SCIENCE OF HISTORY.

Introduction to the History of Philosophy, by Victor Cousin, Professor of Philosophy, of the Faculty of Literature of Paris. Translated from the French by Henry Gotfried Linberg. Boston: Hilliard, Gray, Little & Wilkins. 1832.

For something more than two hundred years, that is, since the year of Grace 1637—the year in which was first published Descartes' celebrated work "*De la Method*" (concerning method)—there has been gradually maturing upon the continent of Europe, and as far as the rest of the world was concerned almost silently so, a new school of philosophy which, by the application of its principles to History, promises to add a rich contribution to the general fund of human knowledge. It is, too, a contribution which, in these days of scientific discoveries, is not only much needed, but is in good taste and in admirable keeping with the times. In effect, if this new philosopy shall be found able to withstand the test of close scrutiny and severe analysis which that relentless and infallible arbiter of systems, Time, never fails to apply, it will do nothing less than lift up History from its present humble condition, and erect it into a *pure science*.

It would seem, by the caption of this article, that we have ventured to anticipate the rendition of this judgment, and to declare in advance that History is already a science. It is not we who make this declaration; it is the philosophy, of which Mr. Cousin, in the work before us, is one of the most able expounders, that invests History with the sublime attributes, and has dignified it with the lofty title of a *positive science*. It rests with this philosophy to vindicate its own claims to universal acceptance, before that tribunal which alone is competent to decide upon their validity; and for this purpose it has enlisted many able advocates in its cause. If, we repeat, those claims shall be found valid, History, in common with many other branches of human knowledge hitherto, like it, deemed lawless and arbitrary, will thereby reap immense profit; the complex phenomenon of human societies will be exposed and better understood; and unity, philosophical efficiency, and a common relationship between the various physical and natural sciences, will be established; for it cannot but strike forcibly all reflecting minds, that those sciences, known among us by the designation of positive or exact, on account of the peculiar method of their development, have hitherto revolved in separate and distinct orbits, each being developed by itself apart from the rest, owning no kindred sympathy and no community of principles and laws; the principles and laws of one differing, perhaps, after all, from the others, more in their technical phraseologies and in their external manifestations or forms, than in their intrinsic natures. This is a matter then which concerns all mankind, and it is of the highest magnitude to their interests that a speedy decision be had in the premises. The speediest and most effectual method of arriving at this judgment, which shall be final and decisive, is by publishing it to the world for discussion, and by making that publicity and that discussion as wide and general as possible.

This subject, all important as it is, and much as it has agitated the

public mind on the continent of Europe, where it originated and where its discussion and development are mainly confined, has as yet obtained but little attention in this country, and still less, we believe, in England where the utmost incredulity is entertained or affected in respect of the truth of its doctrines, or indeed of the practicability of arriving at any truth at all in such matters as it professes to discuss. In despite, however, of the attempt which, by their silence and indifference, as well as by their words when they condescended to break their silence, these two great and intelligent nations express for this "Continental School of Philosophy," as by way of distinction it has been called, yet we are not aware it has declined, or has exhibited any symptoms of declension, in interest among the French and German people, who claim to be its progenitors or at the least its sponsors, and who therefore cling to it with all that fondness and pertinacious love so peculiar to the sentiment of paternity. In truth, the persons who have mainly contributed towards such development as it has at present reached, must unquestionably be classed among the brightest intellects, the ripest scholars, the profoundest thinkers, the most logical reasoners and polished writers the world ever knew. In Germany, it claims for its patrons and expounders, amongst a host of other illustrious names, such men as Spinoza, Kant, Fichte, Schelling, Hegel, and Schlegel; In France, Descartes, Condillac, Collard, Cousin, Jouffroy, Michellet, and in the same category we hope we may also be permitted to rank her most distinguished statesman, Guizot, have divided the empire of thought; in Italy, Vico more than a hundred years ago wrote his famous work, just now beginning to attract much attention, which he styled *Nova Scienza* (new science,) the object of which was to give a universal history of humanity according to philosophical principles, and without which the philosophy of history would be studied to great disadvantage; Bossuet also, in France, preceded Vico in the same design; and Herder, in Germany, we believe, closes the list of philosophical historians. There are many other names equally illustrious that might be mentioned, but these will suffice to show how difficult it would be for any other branch of human knowledge to display a more brilliant galaxy of towering minds for its expounders and defenders. Assuredly this of itself is a high recommendation. Upon this score alone the Continental School of Philosophy commends itself to our favorable consideration. To treat with supercilious contempt, and to reject without the courtesy of examination, the common product of the most brilliant intellectual luminaries of the human race, is no proof of superior sagacity. Such conduct, indeed, might with more propriety be set down to account of superior dullness, or to an inability or disinclination to enter upon the investigation of a theme requiring the exercise of the highest faculties of the mind, and demanding a vast amount of patient labor, profound erudition and deep research. Until England and the United States can offer to the world something better on the same subject, and endorse it by more responsible names, it is due to their credit as co-laborers in the cause of science, at least to entertain this philosophy with decent respect, to apply to it the scalpel of a genuine criticism, to dissect and analyze its character, and afterwards to shape their conduct towards it accordingly.

It is by no means rational to suppose that History must always remain a series of incoherent words, succeeding each other in an order we know not why; a confused jumble of facts; a mass of disjointed members; a simple chronology, *a posteriori*, expressing no intelligible idea or definite meaning as a whole. Rather is it not desirable, and is it not time, that history should come forth from the chronicle, and reach its genuine form? Precisely one of the great practical uses to which this philosophy is designed to be applied, is to give to the facts of human history a scientific exposition and arrangement, and to erect history itself into a positive science analogous to the science of astronomy and the other physical sciences.

The actions of mankind, whether in the capacity of nations or of individuals, as they are presented to us in chronicles and records under the denomination of history, have the appearance of being purely arbitrary, accidental, and as it were, vagrant. They seem to have acknowledged no fixed law of occurrence and recurrence, but to constitute a mass of indigested and indigestible materials, chronologically arranged, to be conned by rote, and to demand from the student the exercise of no higher faculty of the mind than that of memory. The only useful purpose to which history thus written has ever been attempted to be applied, or indeed to which it has been susceptible of application, has been simply as a code of morals teaching by examples. In the discharge of this office it has been twisted and distorted a thousand ways, and been made to bend to a thousand constructions, the same event serving alternately as precedent and warning. So that, in this capacity, it has enacted the parable of the blind leading the blind, and has been more frequently mischievous than beneficial. Indeed, to this lamentable condition history has hitherto been unavoidably subjected. A sufficient number of facts must be collected before a science can result. In times past the world was not old enough, humanity had not witnessed enough of its own acts to be enabled to deduce from them those immutable laws which were ever influencing the conduct of its members, individually and collectively, unconsciously to themselves, and as it were, in despite of themselves. It was necessary that men should first detect within the life of humanity the existence of a plan, which was gradually unfolding itself from out of its acts, before they could write a systemmatic history detaling this plan; and much time was needed, before the human race could even suspect the existence of a plan, amidst all the mobility which appears in the events of this world. It was necessary that the appearance and disappearance of many empires, many religions, and many systems should have been witnessed, before men could think of comparing them, and of elevating their minds to the contemplation of the general laws which engender and govern them. It was necessary that mankind should have outlived many revolutions, and many instances of *apparent* disorder, before they could learn to comprehend, that all such instances of disorder are in reality only *apparent*, and that on high, there exists an order, at once invariable and beneficent; which is continually manifesting itself amidst the confusion which appears to reign here below, which extracts light of out darkness, which is ever and forever triumphant amid the rise and fall of empires, systems, and religions,

and will still continue to preside over the wreck of matter and the crush of worlds.

Viewed, then, as a vast collection of facts in the plastic hands of the philosopher, out of which he is to extract the grandest science that has yet blessed the world, history comes to be a rich mine of inestimable value; and in truth it is herein, precisely consists the science hitherto rendered by history. In arresting and daguereotyping the actions of mankind, as they passed in ever-shifting and varying processions before it, history was indeed most beneficently employed. The time has now arrived when its labors are doubtless about to be crowned with their appropriate fruit. The materials already accumulated are deemed ample enough to yield up to the philosopher a portion at least of those immutable, eternal, and irresistible laws which are supposed to reside at the bottom of social phenomena, and which regulate their motions and compel their accomplishment. It is this important truth which the Continental School of Philosophy recognizes. According to its doctrines, the past has been a preparation for the present; the present is in like manner preparing the future; and the future is agitating and vivifying the present. It declares that the whole series of phenomena that have transpired since the birth of humanity, or that are yet to transpire, succeed each other in an order neither arbitrary nor fortuitous, but in obedience to law as determinate as those which govern the planetary system, or the vegetable and mineral kingdoms, or any other system of nature; and it professes furthermore to determine the law of the succession. In its action it is perspective as well as retrospective—it looks to the future as well as to the past—it tells not only what has been, and why it has been so, and not otherwise, but with equal facility it foretells what is to be, and why it will be, just as astronomy is able to determine the exact state of the heavens at the remotest periods, past as well as future.

And now the question naturally suggests itself, Is this practicable? Is it possible? Can it be done? The philosophers say it can. One of them, Mr. Cousin, is now upon the stand—we will interrogate him. Perhaps hereafter we will call up other witnesses; for they seem not all to testify alike, although they in some degree concur as to the general result which we have announced. This author has been selected in preference to any other member of the fraternity, of which there is a goodly number, and this particular work of his in preference to any other of his writings, for good and sufficient reasons. Mr. Cousin stands professedly at the head of his class, and is the founder of the school of Eclectic philosophy, which for sometime past has been exciting no inconsiderable stir in France and elsewhere. In his hands eclecticism is in some sort a resume of all the different philosophical doctrines that have agitated the European mind since the days of Descartes and Bacon. It absorbs within its capacious bosom all those conflicting systems, and reproduces them in an amalgamated and agglomerated totality, rectified, purified, and refined, and somewhat accreted by additions made to it of the peculiar views of its author. In his system of eclecticism, Mr. Cousin professes to despise nothing, to profit by every thing, to shun all that in himself is exclusive, but to comprehend and to forgive it in others, to accept of all and to combine

all; to strive to reach that which is universal and complete, and to press forward towards it even through the most exclusive points of his predecessors and masters. Such is his aim, such is his method, in history as in philosopy and in all things.

We have thus given, as clearly and concisely as we know how, the notion we entertain in regard to Cousin's system of eclecticism. Such, however, is not exactly the point of view in which some of the more ardent admirers of this school would have it considered. It would seem that the founders of this system, or whoever has the christening of it, were unfortunate in their selection of a name. The vocable, from some cause, has become unpopular, either because it has been misunderstood or because it is really objectionable. The *name* of a philosophy is presumed to designate in some manner the innate and hidden character of its principles; for this reason, the unpopularity of the word "*eclecticism*," as applicable to a system of philosophy and as descriptive of its general character, has attached more or less discredit to the philosophy it embraces. Whether those who judge unfavorably of the eclectic school of philosophy have formed their estimate of it from a thorough examination of its principles, or have judged it on account of its name, we of course will not pretend to decide. It is, however, condemned by many upon the ground that two errors, or any number of errors combined, will not yet make a truth. For example: if sensualism and spiritualism separately, are false, their union will not make them true. Hence the friends of the system contend, that eclecticism means the contrary of a commingling of heterogeneous systems; being intended to designate a discriminating selection of the elements of truth which may be found in each system. This definition, in its turn, has also been objected to on the ground, that men will not accept a philosophy which, by reason of its title, they are given to understand beforehand, owes its claims to credence solely because it professes to arrive at truth by harmonizing opposite views and conflicting theories by selection and exclusion at will; because, they say, all men are not agreed as to what is true or what is false in any given system; that the very element which one would select as true might be excluded by another as false.

According to our view of the matter, the eclectic school does not consider either sensualism or spiritualism as in any respect false in themselves; on the contrary, it accepts them both as true in all their principles, widely divergent as they are from each other, and considers them as being falsified only when each, apart from the other, is mistaken for the whole truth, when in fact they are but dissevered parts of a whole; it avers that these two systems originally co-existed and dwelt peacably together in the vast frame of Cartesianism, such as Wolf left it; that so long as they remained thus enveloped in each other, neither could possibly show or know its true character; that in order to attain to their complete development, and to reveal all the hidden powers that were concealed in them, it was necessary that each of these philosophies should be developed in an exclusive manner; that for this purpose they were separated and placed in full contradiction with each other; hence the energetic and fruitful warfare with which they filled the latter part of the eighteenth century; that

having thus arrived at maturity—having fully displayed all their energies—having exhibited all of which they were capable—and given to the world all that was contained in each respectively, it was deemed expedient that they should remain no longer separate and hostile; hence, eclecticism sets about to re-unite them; and, accordingly, in eclecticism they meet to reconcile their differences, to explain, illustrate, and verify each other.

For example: the sensual system originated in England, the country of Hobbes—a country well adapted, by reason of the genius of its people, to give birth to such a philosophy. The celebrated Locke was the first who expounded the principles of this system; and Locke was the legitimate successor of Hobbes, and admirably represented, in all the leading features of his mind, the aggregate character of his countryman. He it was, then, who first taught the doctine that all ideas are derived from sensation and reflection; in other words, that it is only by means of observation or experience, aided by reflection, that the mind can acquire or does acquire any knowledge whatsoever; and of course the physical senses are the only channels through which this knowledge is conveyed to the mind; hence the mind can only be the aggregation of sensations thus experienced, over which the spirit of reflection passes and fuses into union and harmony. If we will remember the "selfish system" of Hobbes, who preceded Locke, and whose partial and one-sided philosophy had long exercised deep and abiding influence over the English mind, and had prepared, as it were, the ground for the reception of seed afterwards to be planted there, we will be still more forcibly struck with the peculiar fitness of England to be the birthplace of a philosophy like that announced by Locke, and less astonished at the vigorous growth to which it attained under the fostering care of Hume. It did indeed acquire a luxuriance of growth which its original founder was very far from anticipating; and the bitter fruits it was made to bear were still less agreeable to his taste, or in accordance with his calculation. Locke was, in some respects, a true disciple of Descartes—and was the first, we believe, who introduced into English philosophy the Cartesian method of psychological analysis of human consciousness. But as Hobbes, before him, has disfigured and mutilated human nature by reducing all its acts, motives, impulses, and all morality, to "self-interest, well understood;" so in like manner Locke, entirely preoccupied with his favorite theory, that sensation and reflection are the only sources of knowledge, deformed and mutilated human consciousness, by overlooking the independent and spontaneous action of reason, and by excluding from the mind all those primary ideas, or first truths, which are communicated spontaneously by the intuitive reason. For it is clear, that while much material for knowledge is communicated through the senses, there must pre-exist in the bosom of consciousness a machinery fitted to receive and to make use of it; that this machinery pre-exists there independently of the senses; and that, besides working up the raw material supplied by observation, it must suggest by its own peculiar action ideas which could never have been derived from experience alone. It is this compound action of the mind which Locke's philosophy overlooks, considering as it does only

the exterior element and neglecting entirely the interior elements, liberty and intelligence; thus denying utterly the impersonality of reason. This was indeed a pregnant error, as will presently be seen. In the meantime, we beg it to be understood we demonstrate nothing, we only designate; we advocate nothing, we only explain; for it is not our design to teach eclecticism, but to describe it.

No objection, as we understand, is taken to the fact that the elements of consciousness were thus separated; on the contrary, it is considered highly essential and necessary that they should have been so dissevered; because, in cases of great complexity like this, the workings of the combined whole can only be properly understood by disentangling the parts from each other, and analyzing each part by itself. It was quite natural that the exterior element should have been the first to have been seized hold of and disengaged from all connexion with the interior and more hidden element; because the former is more exposed to view, and therefore much more likely to be the first to arrest attention. Having once gotten possession of this exterior element; having for a long time directed attention exclusively to its consideration; and having at last discovered it to be so fertile and so full of resources as, indeed, it really is, it was also quite natural that its advocates, in the first moments of enthusiasm at so wonderful a discovery, should deem it omnipotent and should exclaim "*Eureka*," "I have found it." Accordingly, it was forthwith erected into the god of their idolatry, and at the "sound of cornet, flute, harp, sackbut, psaltery, and all kinds of music," the rest of mankind were expected to fall down and worship the image that had been set up in Dura.

[TO BE CONTINUED IN OUR NEXT.]

Art. VII.—CONTRIBUTIONS OF THE NAVY TO SCIENCE AND COMMERCE.

THE Association of American Geologists and Naturalists which convened during last summer in Boston, had under consideration a report prepared by Lt. M. F. Maury, of Washington, D. C., upon "The importance of the information which our public cruisers might collect with regard to the Gulf Stream, and other subjects of general interest." We have been favored by the author with a manuscript copy of this report, with the accompanying documents, charts, drawings, &c. The Association having from a want of funds, we believe, determined not to publish its valuable papers the present year, it has occurred to us that with great propriety we could present this to our readers. It discusses subjects with which commercial men should be familiar, and relates in an especial degree to the Gulf of Mexico, in which we have all so much interest. The remaining papers, &c. of Lieut. Maury, will appear in other numbers of our work; and we shall endeavor to furnish the charts, &c., if they can be obtained.—EDITOR.

THE GULF STREAM.—Observations should be particularly directed to the force and set of this stream, to the temperature of the air and water in it, as well at the surface as at various distances below; to the depth of the current itself, and to the temperature of the water in it, and on either side of it, both at and below the surface; to the fluctuations of the Gulf stream during gales from any quarter, especially

those which cross or oppose it; to its depth, however great, and to the character of the bottom, specimens of which should be carefully preserved, being carefully labelled with position, date and depth at which they were obtained. In crossing and about the edges of the Gulf stream, should alternate streaks of cold and warm water be encountered, it would be very interesting to know their position, breadth, velocity, depth, &c.

With these objects of inquiry in view, it is important to have the Gulf stream *snaked* across from time to time, and as the other duties of the Home, or West India cruisers will admit, from the straits of Florida to the banks of New Foundland.

In order to ascertain the force and set of its current with the utmost accuracy, it is desirable that the vessels when so engaged, should sail free, establish by observations their position whenever practicable, at least once in every 10 or 12 miles distance, and oftener in light winds, and that they should steer as nearly by astronomical bearings as the weather will admit. For this purpose, the prismatic azimuth compass should be mounted on its tripod abaft the binnacle, and as near the centre of attraction from the surrounding guns and other ferruginous materials as possible; the variations should be obtained as often as practicable, and whenever the course is altered, and fresh comparisons made between the prismatic compass and the steering compass; which difference should be carefully noted or preserved as a guide, when, with similar headings astronomical observations cannot be had. Each foot of the tripod should have its mark on the deck, in which it should always be placed. In light winds and calms boats properly fitted should be lowered to try the current. For this purpose, they should be provided with a parachute made of canvass having weights attached to it, and so constructed that, when let down into the still water below the current, it may spread out, and by its resistance serve as an anchor. The velocity of the stream to the depth of several fathoms, may be readily ascertained by means of the yachometer and its direction on the surface, by a small log line or chip, or by one or more fishing lines tied together, and having small corks to float them and to guide the eye.

TEMPERATURE OF THE GULF STREAM AND UNDER CURRENTS.—The absence along our coasts of coraline and other marine formations or productions which are found in corresponding latitudes elsewhere, together with other circumstances which it is needless to name, seem to indicate the existence of counter currents of cold water, either at the surface or below it, which set from the northward towards the south; observations decisive of this question would be highly interesting and of great importance in their bearings upon ocean currents generally. With the aid of a very simple contrivance, well known to navigators, i. e. lowering a thermometer in a wooden cylinder with a valve opening upwards at each end, this fact may be satisfactorily established by carefully noting the temperature at various depths, both in and on each side of the Gulf stream. In order to ascertain the depth of the current in the Gulf stream, it is desirable to take the temperature at the depth of every 10 or 15 fathoms, underlaying until the cold stratum or the bottom be reached.

Should an under current of cold water be any where detected along our coast, it is desirable that its limits, force and set should be ascertained as accurately as circumstances will allow.

There is thought to be a deep shoal about 120 miles to the southward of George's Bank. It is important to remove all doubts as to this question.

The configuration of the coast of Georgia seems to indicate that the course of the Gulf Stream in getting in the Florida channel, is not due north, as generally laid down on the charts, but that it is to the northward and westward.* If so, the fact is important to navigation, and will explain the paradox so often alluded to by navigators, viz: that the Gulf Stream runs with greater velocity off Cape Fear, or Hatteras, than it does directly after quitting the Florida channel. Each vessel should keep a careful record of the weather, the work performed—and at the end of each cruise to sea, forward an abstract of it, together with all the specimens and soundings, to the Navy Department, that they may be lodged in some convenient place, for final arrangement and future reference. The tracks of the vessel her, and her position at each observation, should be laid down upon the chart for her own guidance.

The approach to the coast of the United States in bad weather would be greatly facilitated, by ascertaining and establishing the line of deep sea soundings between it and the Gulf Stream. To establish this line for the whole coast, would be a work of time: but if every vessel, on leaving or making our principal harbors, were to run a line of deep-sea soundings, the informatien thus collected would, in a very short time, be found of vast importance to merchantmen.

Gulf Weed.—Its latitude and longitude, appearance, quantity, and a careful record of all facts calculated to throw light as to its place of growth and manner of growth

Sea Sargasso.—The position of its borders—the temperature of the water, in depth as well as at the surface. It would be particularly interesting to know the depth and character of the bottom of this part of the ocean.

Drift.—The place, appearance, &c., of any drift-wood, or other floating body, brought from the shore. Any information concerning a summer and winter level of the Gulf of Mexico—the quantity of drift-wood from the Mississippi lodged on the Tortugas and Key West, or carried out to sea—would be very valuable.

Icebergs.—Their appearance and locality—a full description of them, and of the debris with which they may be loaded—is at all times desirable.

North Pacific.—The attention of our cruisers visiting this ocean is particularly invited to any appearance or indication as to a stream of warm water from the China seas and their vicinity, towards the northwest coast of America—its general resemblance to the Gulf Stream—observations also as to the force and volume of a cold cur-

*This fact has since been fully established, by Lieutenant Maury's "Wind and Current" chart, since constructed. It shows the set of the Gulf Stream to be to the west of north, as here suggested.

rent from the Polar basin through Bhering's Straits—or of a cold current within the tropics, towards Northern Asia and America—the examination of deep sea temperatures about the equator, and the tracing out of under-currents, wherever discovered—would be a subject of exceeding interest in theoretical navigation.

Storms.—The usual accounts as to their strength generally given in the log-book, with frequent barometric and other meteorological observations, during their continuance and immediately succeeding—including any remarks the officers may deem worthy of note—would satisfy this head.

The Abstract Log.—For the sake of embodying in a convenient and accessible shape the information here sought, it is respectfully suggested that an abstract log, something after the form herewith submitted for your consideration, and annexed, be regularly kept on board each ship, and that all the officers, each under his own signature, be invited to enter any remarks, or observations which he may deem worthy of note. In stating the amount, or assuming the difference between the places of the ship, as per dead reckoning, and observation, care should be taken; first, to estimate the effect of leeway, bad steerage, heave of the sea, the allowances for which can best be made at the time and by the officers themselves. After making due allowance for these, if there still be a difference between the reckoning, this difference only should be entered in the abstract in the current column. It is greatly to be desired that nightly observations for the latitude, by the meridian altitude of the planets and stars, should be regularly made, and sights for the chronometers should be taken regularly both A. M. and P. M., and the position of the ship recorded each time. Streaks of warm and cold water, their limits and breadth should always be noted. So also the latitude and longitude of any undue alteration in surface temperature. The importance and value of the abstract log would be enhanced still more, were it to contain succinct accounts of the whaling grounds, of the geographical habitation of the different genera and species of fish—designating those which are most esteemed at each place as an article of food; of the productions and geological features of islands and other places; of the formation of shoals, spits and bars; of latitudinal limits of coral; of genera and species of molusca, and all other marine productions; of marks, particularly in volcanic regions, as to elevation in subsidence of the shore line; rise and fall of tides; establishment of the ports; effect of gales upon the establishment of the port from actual observation; also the latitude and longitude of all places visited. For this last mentioned and highly important purpose, supposing the ordinary instruments of navigation only to be on board, the observations for latitude should in all cases be made from the artifical horizon upon North and South stars on the meridian, in preference to the sun; and for longitude by chronometer, upon equal altitudes of the sun in preference to the stars.

For the purpose of condensing the information entered on the abstract log, the following symbols and abreviations are respectfully suggested, that every entry may be properly designated. They are the more important, as many of them are already agreed upon by

navigators: **O**—lat. by meridian alt. of the sun; **)**—lat. by meridian alt. of the moon; —*—lat. by the stars; —**O**—lat. by double altitudes; —**C**— long. by chronometer; —**R**—lat. dead reckoning, from the last observation; — **)**—long. by Lunars; —**D**—do. dead reckoning since last observation; —30-600 deg.— temperature in depth. Thus, such an entry would signify that the temperature was 30 deg. at 600 fathoms.

0	Denotes a Calm.		
1	"	Light Airs—just sufficient to give steerage way.	
2	"	Light Breeze, with which a well-conditioned man of war under all sail and clean fall, would go in smooth water, from - - - - - - -	1 to 2 knots.
3	"	Gentle Breeze, " " "	3 to 4 "
4	"	Moderate Breeze, " " "	5 to 6 "
5	"	Fresh Breeze, in which the same ship could just carry close hauled	Royals, &c.,
6	"	Strong Breeze, " "	Single reefs and t. g. sails.
7	"	Moderate Gale, " "	Double reefs, jib, &c.
8	"	Fresh Gale, " "	Triple reefs, courses, &c.
9	"	Strong gale, " "	Close reef and courses.
10	"	Whole Galo, with which she could bear close reefed m. topsail and reefed foresail.	
11	"	Storm, with which she would be reduced to storm staysails.	
12	"	Hurricane, to which she could show no canvass.	

b—	Denotes	Blue sky, whether with clear or hazy atmosphere.
d	"	Drizzling rain.
c	"	Cloudy, *i. e*: de ached opening clouds.
f—	"	Fog—Thick fog.
g	"	Gloomy, dark weather.
h	"	Hail.
l	"	Lightning.
m	"	Misty or heavy—so as to intercept the view.
o	"	Overcast—the whole sky covered with one impervious cloud.
p	"	Passing showers.
q	"	Squally.
r	"	Rain—continuous rain.
s	"	Snow.
t	"	Thunder.
u	"	Ugly, threatening appearances in the weather.
v	"	Visibility in distant objects, whether the sky be cloudy or not.
w	"	Wet with dew.

•.. .. .. Under any letter, denotes an extraordinary degree.

By the combination of these letters, all the ordinary phenomena of the weather may be recorded with certainty and brevity.

EXAMPLES.

bcm	Denotes	Blue sky with detached opening clouds, but heavy around the horizon.
gv	"	Gloomy, dark weather, but distant objects distinctly visible.
gpdlt	"	Very hard squalls, showers of drizzle accompanied by lightning and very heavy thunder.

☞ Not having the astronomical marks necessary to indicate with certainty what is intended to be conveyed by the signs used in the above article, we have approximated as nearly to the characters as possible. Ed.

Art. VIII.—NORTHERN LOUISIANA AND ARKANSAS.

PARISH OF OUACHITA; MONROE, EL DORADO; CAMDEN; PRINCETON; LITTLE ROCK; HOT SPRINGS ARKANSAS; THE MAGNET CAVE; CHALYBEATE SPRINGS; OIL-STONE QUARRIES OF ARKANSAS; FARMERSVILLE; DESCRIPTION OF THE HOT SPRINGS; SOCIETY, HEALTH, WATER, ETC., ETC.

HAVING made an excursion from Monroe through the northern part of this State, to some sixty miles northwest of the "Hot Springs of the Ouachita, I have been urged to send you my observations of the region through which I travelled, which, if you deem worthy of publication, may be of service to persons desirous of visiting the different watering places in that section of the country.

My means of observation were necessarily very limited—but never having met with a description of the route pursued, I have condensed them, trusting they may prove of some little value.

The northern part of Louisiana is almost a *terra incognita;* but the immense influx of a population generally in easy circumstances, is destined soon to make its influence felt. It is at this time increasing in strength and numbers faster than any portion of the State. The parish of Ouachita, which about ten years since polled about 350 votes, has had detached from it the parishes of Carroll, Morehouse, Union, Jackson, and parts of Caldwell and Franklin—which in the aggregate now poll about 1500 votes.

I left Monroe on the 31st May last, and travelled twenty-five miles on the east side of the Ouachita to the mouth of Bayou Bartholomew, one of its principal tributaries. This stream is navigable for steamboats upwards of 250 miles. Here I crossed the river to "Ouachita City," a village of recent date, and the "landing" for the freight to and from the parish of Union—its population yet small, is about eighty souls, but from its commanding situation, must soon be much greater.

The lands from Monroe to this point are rich alluvion, well cultivated, and with some of the finest plantations in the parish. The production is cotton and corn—yielding an average of 1500 lbs. of seed cotton, or 35 bushels of corn per acre.

From Ouachita City to El Dorado, the distance is fifty miles—the face of the country assumes an entirely different appearance, being pine hills, tolerably productive, and well watered by good springs: the growth of timber, principally red oak, hickory and dogwood; and the soil yields about 1000 lbs. seed cotton, or 35 bushels of corn, or oats. Sweet and Irish potatoes are also successfully produced—and the road thus far good for carriages.

El Dorado, the county seat of Union county, Arkansas, is a new town, handsomely laid out. There is being erected a spacious brick Courthouse—a good Seminary of learning—and several beautiful private residences. The commerce of the place is very considerable, from its proximity to the Ouachita river. The population of the town is nearly 400, and of the county about 9,000.

From the advantages to be derived from good schools, and the healthy character of the place, it will eventually be one of the most populous towns in the State.

The population of the county 8 years since did not exceed 400!

From El Dorado to Camden, distant 35 miles—the road is good—the hills become more abrupt—the soil about the same as before described—and the production without change.. About eleven miles north of El Dorado is "Bayou Smackover"—a corruption of the French "Chemin Couvert." It is a large creek, not navigable, but has some rich lands on its borders.

CAMDEN, on a declivity of a high range of hills, and immediately on the west bank of the Ouachita river, is the county seat of Ouachita county, and is most tastefully built. Having been built in the woods, the citizens have left many of the original forest trees standing, which gives to it an agreeable appearance. Like all the towns above Monroe, it was commenced but a few years since, on the site formerly known as "Ecore a Fabre"—an ancient rendezvous of hunters, and the point to which produce was was wagoned from Washington and its environs. The commerce of this point is already nearly equal to that of Little Rock, and must, from its great advantages, soon outstrip it. It is nearly at the head of large steamboat navigation, and has some four or five such boats regularly in the trade, which have heretofore been barely sufficient, and this year will be enabled to perform all the carrying business.

Another cause of its importance as a shipping point, is the dangerous and uncertain navigation of Upper Red River. Already a great quantity of merchandise for Washington, 65 miles to the west, is brought here; and were the citizens to make a charcoal road over the swamp of the "Canies," intermediate between two creeks half way between the two towns, there is no doubt that a large portion of upper Red River would get its supplies by this route, as the navigation is generally open much earlier, and the difference in freight and insurance would nearly, if not quite pay for the land transportation. The road is good, with the exception of this obstacle, which, in its natural condition, is almost impassable in winter and spring. An outlay of a few hundred dollars would make it permanently good, and repay the expense a thousand-fold. Let the citizens of Camden do this, and I think it would be predicting but little to say, that Camden will be in a few years the largest town in the State of Arkansas. Its population is about 600.

At the distance of one half mile above Camden I crossed the river to the east side. For two miles the road passes through overflowed bottoms, which, if reclaimed, would prove to be very fertile. It then commences to run on the hills, which are not as high here as near Camden on the west side; here gravel makes its appearance. At the distance of thirty miles from the crossing is "PRINCETON," the county seat of Dallas county—a town of too recent date to have as yet made any great improvements—but being thirty miles from navigation it is not likely to improve with the gigantic strides of Camden. The soil, although gravelly, is said to produce remarkably well, from 800 to 1000 lbs. seed cotton, or 40 bushels of corn to the acre.

From this town to the military road, (the great mail route from LITTLE ROCK to upper Red river) a distance of some forty-five miles, the hills gradually become more broken and more gravelly, until with-

in two or three miles of the military road, where large masses of rock begin to make their appearance.

From Little Rock to Washington, in Hempstead county, there is a tri-weekly line of stages running.

From this to the HOT SPRINGS, the distance is twenty-two miles, and two hundred and seven miles from Monroe—the road good the whole route for carriages, and accommodations comfortable.

Previously, however, to arriving at the Springs, I stopped at the "MAGNET COVE." This cove is a circular valley, having an area of two miles square—the soil is of a rusty color, and not a pine is to be seen within its limits, although surrounded by pine forests. At the southern side is an extensive bed of magnetic iron ore or load-stone, which covers the surface of the ground for several acres. It varies in size from that of a pea to 30 lbs. Its magnetic influence is such as to prevent the immediate vicinity from being surveyed by a compass, but does not extend as far as is generally believed. I was assured by Dr. John R. Conway, a practical surveyor, who has surveyed large bodies in and about the Cove, that its influence does not affect the compass exceeding, from the centre, one mile in any direction. It is about two miles from the Ouachita river, and seven from the highest point to which small streams can reach. This ore is said to yield 90 per cent. of an excellent quality of iron.

The "HOT SPRINGS" are situated in a valley about seven hundred yards in length, running north and south, and 70 yards wide. On either side is a high mountain; at the base of the eastern one runs "Hot Spring" creek, which empties in the Ouachita river, some five or six miles south of this. Along the base of the latter mountain issue the Hot Springs, some thirty-five in number, the temperature of which I found, after several trials at long intervals, never to exceed 146 deg. F.; sometimes as low as 120 deg. F. The creek, until it arrives at these Springs, is cold—but here the temperature is raised to about 112 deg. in dry weather, and much less when rainy.

In the creek below, where it receives the hot water, are fish; and although the water never gets warmer than 112 deg., they appear to keep in the coolest places. There are none in any of the Springs as I have heard reported, nor could they there exist, for lizards or snakes sometimes accidentally fall in them and are almost instantly killed.

These Springs have a great reputation for curing various diseases, but they are efficacious only in rheumatic affections. For this, if persevered in, they are a certain cure. In pulmonary diseases, or other debility, they are said to be very injurious.

The usual mode of using the bath is, to get under the douche (which coming from some spring at sixty or one hundred feet distance cools the water to a bearable point) remain one or two minutes, then shut yourself up in the "vapour room," which is nearly air-tight and immediately over one of the hottest springs; the temperature of the room, if kept closed, attains 130 deg.; here remain 10 to 20 minutes. As soon as you enter this room, the perspiration flows most profusely; but notwithstanding the great heat, the skin feels cool and pleasant. At the expiration of the time deemed necessary, you again get in the bath or under the douche in the adjoining room and "wash off" for a

few minutes, then with coarse towels continue rubbing until the perspiration is nearly checked. This operation is generally repeated during the day; and although one would presume that having been "steamed and perspired" so much, the natural consequence would be to be debilitated, yet many gain flesh and strength.

The best time of the year for invalids to resort to these waters is from 1st March to 1st July, and from 1st September to 1st January; the fall months having the reputation of being the most beneficial. July and August are not so well calculated to do any service—the valley being surrounded by mountains, it is a sultry place and productive, if too much bathing be resorted to, of fevers and chills.

Three miles to the east, and on one of the routes to Little Rock, (distant sixty miles) are the WHITTINGTON CHALYBEATE SPRINGS, or rather Spring, as there is but one. It affords a great volume of water—the waste water alone propelling a small grist mill. These waters are considered very beneficial to dyspeptics and persons otherwise debilitated. Mr. Whittington has arranged the premises very tastefully, having detached cottages, snugly built aad comfortable, with chimnies and galleries—the latter more in demand in the summer months. He has the best orchard of various descriptions of fruit I met with in my journey. Some of the native grape is cultivated, which exceeds any grape I ever saw for the quantity borne. The quality is not very good, but will bear a fair comparison with some imported, having high sounding names.

For the citizens of your city, who, after the severe labers of the commercial season feel the necessity of recruiting their strength, I know of no more eligible resort than this Spring. The air is bracing—society pleasant—scenery beautiful—game abundant, and being on the main stage route to Little Rock, and only some fifty miles distant, easy of access.

This is the centre of the *oil stone quarries.* There are some five or six in the immediate neighborhood which are worked to considerable profit; but on account of the want of proper polishing mills, the quantity sent to market is small. Some of these quarries produce grit as good as the best Turkey stone, but on account of the greater facility with which an inferior quality can be prepared for market, that is almost the only kind known.

The quarries appear to be inexhaustible, and will at some future day be worked by capitalists, in such quantities as to produce sufficient to supply the world. The grit varies in quality from the finest hone to the coarsest whetstone.

They have a uniform appearance, the laminar being vertical and varying in thickness from one-fourth of an inch to eight or ten inches. Getting them out in the proper shape is an easy operation; the principal expense being polishing. Good water power being abundant in the vicinity, mills will be erected on improved principles. There are now two for the purpose of polishing, but they are of the most primitive construction and very small.

These stones are waggoned to Little Rock at an expense of from one-half to three-fourths cents per pound, and thence to different parts

[TO BE CONTINUED IN OUR NEXT.]

MERCANTILE BIOGRAPHY, ETC.

I.—JACQUES CŒUR.

In our department of Mercantile Biography it is intended hereafter to introduce, as far as possible, living or contemporary characters. The first of the series of these is now in preparation, but could not be obtained for the present number. It will include one of our leading SOUTHERN merchants, and will, we hope, be illustrated with an engraved portrait.

We have, in a previous number, referred casually to the celebrated French merchant CŒUR. A more detailed reference is called for, from the circumstance that an elaborate life has lately been published in London of this eminent man. From this and from an old biography, by Beawe, we make the following extracts:

JAMES CŒUR, Native of Bourges, was the son of a private merchant, he followed the profession of his father, but with such speedy and happy success, that an author assures us, he gained more alone than all the merchants of the kingdom together.

His commerce was extended in all the Mediteranean; he trafficked in Asia with the Turks or Persians, and the other subjects of the Sultans of Babylon, and in Africk with the Saracens.

It was by the city of Montpellier (which then was the only entrance of the kingdom on that side) that he carried on so great a trade; this also was the only reason that could render that city dear to James Cœur, with which he had not otherwise any other connection, and consequently this was the sole motive that could determine him to embellish it. After speaking of a fountain which he made, where his arms still remain, we shall enlarge a little on the common exchange of the merchants, known at Montpellier under the name of the Loge, which he built, that this building might have a remarkable conformity with the commerce of the city, as it is visible he never dreamt of undertaking the former but with the view of augmenting and facilitating the latter. This building, which still subsists, is solid and magnificent. What is admired above all are the *basso relievos* in medallions which ornamented the front, and which employ the vain curiosity of those who have yet the weakness to give into search after the philosopher's stone; these are to them so many enigmatical emblems under which they imagine that James Cœur has hid the mysteries of the grand work of which he had made use, as they pretend, to acquire his immense riches, which, notwithstanding, he only owed to trade, as Mr. Astruc believes.

His great riches, acquired by a way so lawful, and the probity with which he conducted his busidess having rendered him famous among foreigners and known at court, Charles VII called him to the Ministry and trusted to him the management of his finances, making him grand treasurer.

His elevation did not in the least interrupt his trade, but, on the contrary, served him to continue it with greater reputation and success; but then this generous merchant, whose heart was yet greater then his fortune, had the most noble views in his commerce, and preferring the interest of the State to his own, it was much more in his peculiar funds than the prince's exchequer that he found resources, not only to re-establish the kingdom—exhausted by a long war—but to enterprise against the ancient enemies of the French name and to reunite to the crown one of its finest and richest provinces which had been for a long time in the hands of the English.

In effect, very soon the armies were only raised and maintained at the expense of this disinterested minister. He advised the conquest of Normandy, and he alone was at almost all the charge. When he went in embassy to Rome, a fleet of twelve ships whieh accompanied him belonged to him entirely, and it was he that was at all the expense of fitting them out. In a word, after Charles had, as one may say, associated James Cœur in the government of the State, there was nothing in France that was great and considerable which was not supported by the credit of this sage and rich merchant and wherein he did not employ the better part of the great effects that arose to him from his trade. Mr. Astruc says: "his very disgrace, which it appears he never meritted, seemed to have rendered him illustrious."

It is true that the people, accustomed to fancy a mystery and prodigy in things that surprised them and were above their comprehension, reported that James Cœur owed his fortune to the secret of making gold, which always strikes the desire and despair of Chemists; but, it is truer that all the philosopher's stone of this fortunate and able merchant only consisted in his great trade; and that he knew no chemistry more proper to operate the transmutation of metals, than the immense traffick that furnished him with those rich merchandizes of which his storehouses were always full and which he exchanged with so much profit against gold and silver, that an ignorant and credulous populace attributed it to the perfection of the grand works which it imagined he had the good luck to find out.

It was the money of Jacques Cœur which enabled the French to profit by the genius and enthusiasm of Joan of Arc; and it was his honest sympathy and steady manly counsel which seem to have sustained the tender and brave heart of the noblest of royal mistresses, Agnes Sorel, in her efforts to save the king. On her death she selected him for her executor. He had sprung from the people, and raised himself, by successful commercial enterprise, to a level with the princes of his age. He found French commerce behind that of every other nation, and left it prosperous and increasing. Direct and speedy communication with the East seems to have been his great idea. Modern Europe is still contending for it. He had at one time in his employment three hundred factors; and the rest of the merchants of France, with the whole of those of Italy, are not supposed to have equalled this one man in the extent of their commercial dealings. And he proved worthy of his wealth by giving it noble uses. He raised three armies for Charles at his own cost; and he repaired and re-established in his office of Argentier, the deranged finances of the kingdom. But his weakness seems to have lain in the direction of personal magnificence and splendor, and to this we may trace his fall. He did not allow sufficiently for the prejudices of his age, and at last armed them for his ruin. He is described to have far transcended, in his personal attendance and equipment, the chiefs of the most illustrious families of France; and when Charles made his triumphal entry into Rouen, the merchant, Jacques Cœur, was seen by the side of Dunois, with arms and tunic precisely the same as his. His destruction was planned by a party of the nobles, and an indictment of all sorts of crimes preferred against him—among them, the charge of having poisoned Agnes Sorel. He narrowly escaped torture and death—and only this by confiscation of his treasures (which his judges divided among themselves) and perpetual banishment. The latter resolved itself ultimately into a sort of strict surveillance in a French convent, which he at last escaped by the fidelity of one of his agents, who had married his niece. He was again characteristically engaged in active pursuits, and begining life anew as the Pope's captain-general on the coast of Asia Minor, when illness siezed him in the Island of Scio. He left, in his death, another example of the world's treatment of its great benefactors.

In the course of twenty years Jacques Cœur had more commercial power than all the rest of the merchants of the Mediterranean put together. Three hundred of his agents resided at the different ports, not only of Europe, but of the East, and in all the nations contiguous to France. Every where his vessels were respected as though he had been a sovereign prince: they covered the seas wherever commerce was to be cultivated, and from farthest Asia they brought back cloths of gold and silk furs, arms, spices and ingots of gold and silver, still swelling his mighty stores, and filling Europe with surprise at his adventurous daring and his unparalleled perseverance. Like his great prototype, Cosmo de Medicis, who, from a simple merchant, became a supreme ruler, Jacques Cœur, the Medicis of Bourges, became illustrious and wealthy, and sailed long in the favorable breezes of fortune, admired, envied, feared and courted by all. His wealth gave rise to a proverb, long retained by the citizens of his native town: "As rich as Jacques Cœur" expressed all that could be conceived of prosperity and success. Popular tradition asserts that, so great was the profusion of the precious metals he possessed that his horses were *shod with silver*—a common reputation, even at the present day, enjoyed by persons of singular wealth. The adornment of Bourges, where he was born, was not one of the least projects of the great merchant; and having, with a large sum, purchased a considerable tract of land in the town, he began, in 1443, to build that magnificent mansion which still remains a noble relic of his taste and wealth.

II.—RESORT OF MERCHANTS—ROYAL EXCHANGE.

It is difficult to imagine a more interesting spot on the earth's surface than the London Royal Exchange. What has originated within its bounds, narrow as they are, has had a greater effect upon the concerns of humanity than the battle of Waterloo produced, or the Congress of Vienna decreed. The commerce which has been carried by the winds of heaven across every ocean into every shore, at the bidding of the merchants who daily throng its area and its piazzas, has done more to civilize mankind, extend knowledge, and promote happiness than all the councils of the church, all the labors of missionaries, and all the exertions of philanthropists. The assertion is not made irreverently, or without a proper sense of what is due to the zeal, or what has been accomplished by the labors of the pious and good. But it is the wings of *commercial* enterprise that bear the missionary to his distant and dangerous sphere of action, carries "the schoolmaster abroad," and facilitates the dissemination of religious truth, physical knowledge, and moral and political improvement. Surely, then, the place where the energetic and enlightened promoters of this commerce have principally assembled, where their plans have been matured, and from where their peaceful edicts have been issued, is an interesting one to the enlightened lover of his species, to the patriot who contemplates with pride the character of his countryman, the British merchant, and to the citizen of the world who rejoices in the advancement of his fellow man in knowledge, virtue, and happiness. From the days of the royal merchant, Sir Thomas Gresham and the reign of Elizabeth, to the days of the Barings and the Rothschilds and the reign of Victoria—a period of nearly three hundred years—has the small paved area of the Royal Exchange been the resort of the merchants of England, and the place where the merchants of every other country in the world having commercial relations with England —and what country has not?—"most do congregate." That man is not to be envied who can pay his first visit to such a place, so full of time honored recollections, without feeling that his foot treads no common ground; and that the wealth of nations and the well-being of his fellow men have been controlled and influenced by the deliberations of those whose feet have trod that ground during the three last preceding centuries. Suppose it possible that the Royal Exchange, with all its congregated inmates and all their concerns, should, on any given day, be blotted out of existence, where and what would be the commerce of the world? A watch with a broken main spring, a steam-engine with a bursted boiler, or a ship without its rudder, would be inadequate representatives of the commercial world without the Royal Exchange and the London Merchants.

But justly celebrated as these British merchants are for their wealth, their enterprise, their probity and their intelligence, and influential as they have long been, now are, and will long continue to be, through the exercise of these attributes, upon the mercantile interests of the world, there is yet a higher position in which they are to be contemplated. They are the conservators of peace, the nerves and arteries of a nation's power and a nation's wealth. From among them have arisen men of the purest patriotism and the loftiest public spirit—men who, like Walworth, have protected the Crown, and, like Bernard and Beckford, have dared the frowns of a sovereign in defending the rights of the people. From among the merchants of London may be selected men of eminence in every science, and the patrons of every art; men of literature and taste, of the loftiest Christian virtue, the most liberal and benevolent dispositions, and the most expanded philanthropy.

This praise of the English merchants is not rendered them in derogation of their brother merchants both in the old world and the new, but simply in connection with the place of their daily assemblage, and the association which a visit to that spot cannot fail to give rise to.

MONTHLY COMMERCIAL SUMMARY.

COMMERCE OF THE UNITED STATES FOR 1847: COMMERCE OF NEW YORK: IMPORTS AND EXPORTS: FINANCES OF NEW-YORK: COMMERCIAL EMBARRASSMENTS IN ENGLAND—PANIC ANE DISTRESS: GRAIN CROPS: PRICES OF COTTON IN N. YORK, AND DECLINE: COMMERCIAL PROSPECTS FOR 1848.

Amid the most general prosperity the money market of the Northern cities,

New York in particular, has undergone a severe pressure from altogether artificial circumstances. When revulsion overtakes the market, generally it is because through the operation of a season of prosperity and general confidence, the accumulation of obligations maturing, exceed the available means of discharging them. At such times all bid high for money; those with the greatest capital get through and operators of lesser magnitude perish. Such has, however, by no means been the case in the United States during the past season. The amount of business transacted has been very large, more so than ever before.

For the year ending June 30, 1847, as compared with previous years, the business of the Union has been as follows:—

UNITED STATES IMPORTS AND EXPORTS.

IMPORTS.

Year.	*Specie.*	*Goods.*	*Total.*
1842,	$ 4,087,017	$ 96,075,070	$100,162,087
1843,	22,320,335	42,433,464	64,753,799
1844,	5,820,449	102,615,606	108,435,035
1845,	4,070,239	113,184,325	117,254,564
1846,	3.778,132	117,913,665	121,691,797
1847,	24,121,289	122,424.349	146,545,638

EXPORTS.

Year.	*Specie.*	*For. Goods.*	*Domestic.*	*Total.*
1842,	$4,878,553	$8,013,739	$ 92,799,242	$104,691,534
1843,	1,521,348	5,138,678	77,686,354	84,346,480
1844,	5,454,214	6,214,058	99,531,774	111,200,046
1845,	8,606,495	7,584,781	99,455,330	114,646,606
1846,	3,905,268	7,865,206	101,718,042	113,488,516
1847,	1,845,119	6,166,139	150,639,464	158,648,622

The export of domestic produce, mostly breadstuffs, has been fifty per cent. larger than in either of the preceding years. The value of breadstuffs exported for 1847, $65,906,277 against $24,577,991 in 1846; an increase of $41,332,282! The returns have been made mostly in specie, inasmuch as notwithstanding the low tariff was in operation for the first seven months, the quantity of goods imported increased but slightly. In the first two quarters of the present year, however, there has been a larger portion of goods imported. Of the large amount of specie imported, $23,844,002 will have been coined at the national mints in the year 1847; enhancing by so much the specie currency of the country.

The trade of the port of New York for the year ending Nov. 30, which completed the first year of the operation of the present tariff, has been as follows, compared with the previous year:—

EXPORTS AND IMPORTS OF NEW YORK, YEAR ENDING NOV. 30.

IMPORTS.

Year.	*Specie.*	*Free Goods.*	*Dutiable.*	*Total.*	*Duties.*
1846,	$ 762,679	$11,138,124	$57,567,005	$69,467,808	$16,613,561
1847,	8,732,582	8,180,652	79,534,070	96,706,530	20,532,025
Decrease,		2,957,472			
Increase,	7,977,603		21,967,065	27,238,732	3,918,464

EXPORTS.

Year.	*Specie.*	*For. fr. g'ds.*	*Dutiable.*	*Domestic.*	*Total.*
1846,	$1,569,007	$789,741	$2,206,764	$30,259,144	$34,824,646
1847,	3,262,592	769,121	1,530,187	47,860,086	53,421,986
Decrease,		20,620	676,577		
Increase,	1,693,585			17,600,942	18,997,340

This has been a large business; the aggregate imports and exports being $152,128,516. The largest business ever done in one year before, was in 1836, when the amount was $147,174,054. The exports are larger by thirty per cent. than ever before. It is observable that the excess of specie imported is $5,469,690 for the year. In this state of affairs, where so large an amount of business was transacted, it followed that the amount of banking would also be large, inasmuch as that custom continues to carry a large portion of the paper of individuals through the hands of corporations. It is, however, the case, that where that paper is confined to actual business, that is, where every note represents a commodity, the sale of which will liquidate the note, money can never be scarce; on the other hand, it must continually become more abundant, particularly when applied to a profitable export trade. The progress of banking as expressed in the quarterly reports of the New York banks, has been during the two years, as follows:—

BANKS OF NEW YORK.

Date.	*Loans.*	*Specie.*	*Circulation.*	*Deposites.*
November, 1845,	$74,780,435	$ 8,884,545	$21,375,369	$31,773,961
February, 1846,	71,897,580	8,361,383	20,926,330	29,651,401
May, "	72,583,431	8,171,624	20,816,492	30,868,377
August, "	68,652,486	8,673,309	17,886,486	23,110,553
November, "	71,950,191	8,048,384	22,268,522	30,629,196
February, 1847,	70,087,342	9,203,242	21,166,250	31,931,770
May, "	76,688,553	11,312,171	23,809,663	35,799,954
August, "	80,741,677	11,983,124	25,091,687	36,781,080
November, "	80,258,529	9,107,920	26,237,256	35,096,818

The banking movement in August, 1847, reached a magnitude never before attained, exceeding the expansion of 1836, which ended in suspension. From August to November there was no apparent change in the aggregate loans; but in that period the city banks reduced their discounts, and the country banks, as usual at that season, expanded to meet the wants of the new crops. If we take a table of the quarterly exports for the quarters corresponding with the bank returns, we have results as follows:

IMPORTS AND EXPORTS OF NEW YORK, AND BANK LOANS.

Quarter ending	*Imports.*	*Exports.*	*Total.*
January, 31, 1846,	$12,260,560	$ 8,009,638	$20,270,198
April, 30, "	21,002,400	6,711,023	27,713,423
July 31, "	17,537,761	10,296,093	27,853,854
October 31, "	18,141,175	9,102,403	27,243,578
January 31, 1847,	14,374,444	11,354,376	25,728,818
April 30, "	29,309,294	11,648,579	40,957,873
July 31, "	22,678,392	17,753,495	40,431,887
October 31, "	27,863,433	12,325,220	40,188,653

Quarter ending,	*Bank loans.*	*Specie Im.*	*Specie Ex.*	*Specie in bank*
January 31, 1846,	$71,897,580	$ 149,547	$ 259,094	$ 8,361,383
April 30, "	72,583,431	265,548	904,080	8,171,624
July 31, "	68,652,486	111,287	371,504	8,673,309
October 31, "	71,950,191	124,735	130,194	8,048,384
January 31, 1847,	70,087,342	291,612	81,409	9,203,242
April 30, "	76,688,553	5,961,644	321,435	11,312,171
July 31, "	80,740,679	2,168,729	320,000	11,983,124
October 31, "	80,258,529	390,874	1,091,423	9,107,920

This table gives the business of the port with the bank movement of the State; and it is observable, that during the past year, the rise in the line of discounts from Jan. to August, was $10,000,000 against an increase of $15,000,000 in the aggregate business for the quarter. In the preceding year, although in the corresponding period the business increased $7,000,000 the line of discounts fell

$3,000,000, the Mexican war having supervened to caution the banks and cause them to curtail in anticipation of the usual export of specie at the close of the year when bills become exhausted. This year, the import of specie in the early part of the year was considerable, but the large arrival of goods operating through the custom house, kept up an important demand for specie for duties; and the amount held by the banks at the close of the quarter did not increase in the ratio of the import. Bills were then so low both at New York and New Orleans, by reason of the large exports of produce, that the importers of specie, by issuing paper in payment of bills, created a considerable demand for bank facilities, to be met on the arrival of the metals. As the season progressed and imports of goods increased, while revulsion in England depressed the prices of produce, the demand for bills raised the rates, and the import of specie was checked. The continuance of the reverses in England produced an anomaly in the exchanges which never before presented itself to so formidable a magnitude. It is evident, that under the system of exchange which has prevailed between the United States and England, viz: of always drawing upon England without any *counter exchange*, the availability of the exports depends upon the credit of the consignees. This plan has grown out of the fact that capital was abundant in England and less so in the U. States. The shipper of goods in this country, at the time of forwarding an invoice and bill of lading, draws a bill for a portion or all the amount of the invoice, as the case may be. The bill is usually at sixty days' sight and accepted by the drawee on the receipt of the invoice and bill of lading: thus, bills for the whole amount of shipments are running simultaneously upon England, and form *a currency* in which the goods bought of her are paid for. Goods are bought in England either for cash or two to six months credit. The invoice and bill of lading are forwarded with the goods, but the amount of the bill is never drawn for from England; parties there accept notes at a certain date, with the understanding that the remittance shall be forthcoming in time to meet these notes. The importer of the goods here goes into market and buys the bills drawn against produce, remits these bills to the acceptor of notes there, who gets them discounted and applies the proceeds to the notes he has accepted on account of his American correspondent for English goods. The international currency is here the bills drawn in the United States on England. It is evident, that if these bills become discredited, the effect is the temporary loss of all the produce shipped for eighty days, or during the space required for maturing and payment of the bills. This is what has taken place in the last ninety days. The packet of the 4th of August brought advices of an awful panic in London and the failure of many produce houses, some of them connected with the United States. The first effect of this news was to startle those who had purchased bills on that class of persons supposed to be affected by the panic, and they duplicated their bills on better firms to cover the previous remittances. By these means, an extra demand for money was brought about and a rise in bills took place. Packet after packet continued to arrive, each bringing more disastrous and gloomier prospects than that which preceded it. The revulsion gradually changed its aspect; from being the failure of a few corn houses, resulting as was supposed, from the reaction in prices, it became apparent that the cause was general, involving all classes of dealers and all grades of mercantile standing; in fact, that the capital of England was exhausted. The losses by bad crops and the unparalleled absorption in railroads, had reduced commerce and mercantile operations to such extremities that the railroads only could obtain means, and the failures became almost universal in locality and character. As this state of affairs developed itself, it became evident that all drawn bills encountered the danger in a greater or less degree, of non-payment: hence, remitters shunned them, and preferred even at greater expense to send coin. For this purpose, heavy sovereigns were mostly selected, and as high as $4 87,1-2 were paid for them, equal to 110 premium for bills, when bills were at four per cent. in New Orleans, with sight on New York at one per cent. discount, equal to a rate for sterling of 5,1-4 per cent. with brokerage in New York. Although the remitters became thus cautious in respect of exchange, the New York banks do not seem to have taken any steps to provide for the state of affairs which a continued export of specie would necessarily bring about, we find their line of discounts as high Nov. 1, after three months of anxiety on the part of dealers, as it was Aug. 1. They had taken no steps to prepare the public for more limited accommodation, although their specie had declined $2,875,201. The steamer from Boston as well

as the packets from New York of Nov.1, carried a considerable amount of specie. The institutions then became suddenly alarmed, refused rigorously all accommodation, run each other for specie balances, and as far as in them lay promoted a panic. Money has since continued exceedingly tight, and during the worst of the pressure could not be obtained but on very high terms. First class commercial paper sold as high as two per cent. a month, and 1,1-4 per cent. a month was paid on New York stocks as collateral. The exports of specie from the port of New York for November were $1,455,946, and the packet of Dec. 1 carried $533,000, while the steamer from Boston carried $404,000, of which $300,000 was from New York. The nature of the crisis was so well understood by the public that the conduct of the banks was regarded with some degree of contempt. The deposites were very large and individuals came forward to supply the market and take advantage of the high rates paid for money on paper and the low prices of stocks, Treasury Notes falling to 97 and Government Sixes to par. It was generally understood that the export of specie would be temporary, and that even should the disasters continue abroad that the maturity and payment of the bills that could not be sold would soon return the specie upon us. The balance of payments is undoubtedly in favor of this country, and the extent of the temporary specie drain would be equal to the amount that would be drawn by financial operations added to the amount of produce laying dormant through the nonsale of the bills. The exports from the port of New York for the four months ending with November, were were about 16,000,000 dollars, and probably from all sources $30,000,000 went forward; of this, at least one-third was unavailable, and considerable Sums were drawn from the United States by financial movements. As thus: money being not to be got in England, a house in good standing could dispose of bills on itself at sixty days' sight, remit the amount in heavy sovereigns, which are cash on arrival, and by so doing have the use of the money for sixty days at the expense only of the remittance. Many Canadian Government bills on the Imperial Treasury were also offering. The rigor with which the banks refused to loan caused the line of discounts to fall, and the lapse of each week probably found 2 to $3,000,000 paid beyond the loans. With this process of curtailment the demand for money slackened and business operations of all kinds were diminished, sight bills at the South instead of sixty day bills discountable here were in demand. In the mean time the packet of November 4 arrived, with what were thought better prospects; few or no bills were returned, on the other hand many had matured and were paid; a circumstance which was calculated to revive confidence in bills, while the decreasing imports diminished the demand for them as well as for specie for duties, and the market became more relaxed. The anxiety of the public was in a great measure sustained by reason of the mystery which surrounds the banks. The whole mercantile interest has been thrown into a panic because of the demand for specie upon the bank vaults: hence, it is to the interest of every man to be informed of its fluctuation, and of the extent of drain, in order to form some idea when it is to cease. In London, the importance of this is acknowledged and the Bank of England is required to make weekly statements. The New York banks make them only quarterly, and many of the leading houses recently memorialised the legislature to have the returns made here weekly. The legislature have changed the law, but only require that instead of the banks making their returns on a fixed day, for which they prepare, they shall make them on a day to be ordered by the comptroller. This, it is supposed, will prevent them from expanding too freely at any time, but it will not afford the community the required information.

This state of affairs produced the most intense anxiety for the arrival sf the steamer of of the 17th, which took place on the 9th December. Her advices were not, however, of the determinate character which had been hoped for. Money had indeed become somewhat more easy in London, but this arose from the artificial operation of exchange and the paralyzation of business rather than from any radical reform in the state of affairs. The same circumstances which have caused specie to flow from the United States to England, viz: the non-payment of bills due there, have also caused it to move upon England to a greater or less extent from most other quarters, and the supply so produced, has, in connection with the diminished demand, brought about by the numerous failures and the discontinuance of important operations, particularly manufacturing, caused an apparent ease in the market, which promises to be temporary only. The famine in Ireland is by no means less in magnitude than last year, and if railway

demands are less it is because of the difficulty in getting money. The official returns continue to show importations into England of foreign produce for consumption in excess of last year, while the import of the raw materials for manufacture is less. Under these circumstances the returning ease of the money market only stimulates into activity those causes of adverse exchange, the operation of which was restrained by the pressure. The announcement of a loan of $50,000,000 by the French Government has been a bug-bear upon the market, which was relieved by the final adjustment of the loan to the house of Rothschild, at 75.25 per cent. for a three per cent. stock; the interest to commence immediately, but the amount to be paid in monthly instalments of 2,000,000 each. It will require two years, therefore, to pay up the loan. The Messrs. Rothschild immediately paid up the instalments due Nov. 22 and Dec. 22, and stocks generally rose. The mere fact of the Government, unstable as it is admitted to be, being able to borrow on such terms from so sagacious a house, imparted confidence. The available means of the Bank of England had sunk so low towards the close of October, that the liveliest fears began to be entertained. The bank charter act of 1844 took from the bank the power of issuing notes at will. It required that the institution should be divided into two departments, the one called the issue department would have deposited with it $14,000,000 of Government securities, out of the assets of the bank, and it should give the banking department an equal amount of notes to issue. Beyond this amount the banking department could issue no notes unless it gave the issue department an equal amount of bullion or specie. On the 23d October the issue department held £7,865,445 of specie and £14,000,000 of securities, for which it had given the banking department £21,865,445 notes. These had all been paid out in loans and in discharge of Government dividends on the national debt, except $,1547,270 which remained on hand and constituted the whole means of the banking department to make loans and meet any demand for private deposites, which amounted to £8,588,509. In this dilemma, the Government authorised the bank to infringe the law of 1844, by issuing notes as formerly without depositing gold in the issue department. It was to lend these notes at eight per cent. interest in sums not less than $10,000,000, and the Government undertook to procure from parliament a "bill of indemnity" for the bank for violating the law. Parliament was summoned for the 18th Nov. The new parliament is, however, a very radical one, more so than ever before, and the bank did not choose to run the risk of forfeiting its charter until the bill of indemnity should be first obtained. Because the new House might take it into its head to deprive the institution of many of its privileges as a condition of the "bill of indemnity." The bank, therefore, did not avail itself of the permission of the minister. In the mean time, the influx of gold, from causes alluded to, eased the market, and the bank returns stood as follows:—

BANK OF ENGLAND.

Date.	*Private loans*	*Notes on hand*	*Nett circ'n*	*Deposites*	*Bullion.*
October 16, - -	$19,152,496	$2,623,969	$19,315,991	$8,682,584	$8,430,700
October 23, - -	19,467,128	1,547,270	20,318,175	8,588,509	8,312,691
	20,424,497	1,303,103	20,842,412	8,911,442	8,439,674
November 6, - -	19,919,915	2,030,085	20,396,445	8,804,395	8,730,351

On the departure of the steamer, parliament had just met, and this question of currency would probably be the first to come before it, making the news by the next steamer very important, but greater confidence was apparent in the rise in consols, the great barometer, and in the fact that although the bank minimum rate was still eight per cent., good paper could be done at six and a-half per cent. Much anxiety existed, however, in relation to the large amount of dishonored bills that had gone back to all the colonies.

This slight amelioration of the price of money had imparted a little more animation in the produce markets, and breadstuffs were firm and advancing, while more activity was apparent in the manufacturing districts. Buyers for many European markets had increased their purchases, and the tendency of cotton was to increase in consumption and price until the arrival of the Cambria with accounts of increasing crops depressed the market.

The news was regarded in a favorable light in New York, with respect to cotton, and holders seemed more disposed to consider that the lowest prices had been

reached. The decline has certainly been very great in this market, having been weekly as follows, since the highest point, Sept. 15:—

PRICES OF COTTON IN NEW YORK.

Date	*Inferior*	*Good and ordinary*	*Middling and good middling*	*Middling fair and fair*	*Fully fair a good fair*
Sept. 15,		11*a*11,1-2	11,3-4*a*12,1-2	12,5-8*a*13,1-4	13,1-2*a*14,1-4
" 22,	10*a*10,1-4	10,7-8*a*11,1-4	11,1-2*a*12,1-8	12,3-8*a*12,7-8	13*a*14
" 29,	10,1-4*a*10-12	10,5-8*a*11	11,1-4*a*11,3-4	12*a*12,1-2	12,3-4*a*13,1-2
Oct. 6,	9,1-2*a*10	10,1-4*a*10,5-8	10,3-4*a*11,1-4	11,1-2*a*12,1-8	12,1-4*a*13
" 13,	9*a*9,1-2	9,3-4*a*10,1-4	10,1-2*a*10,3-4	11*a*11,5-8	10,3-4*a*12,1-2
" 20,	none	8,1-4*a*8,1-2	8,3-4*a*9,1-4	9,1-2*a*10	10,1-4*a*10,3-4
" 27,	"	8*a*8,3-8	8,1-2*a*9,1-2	9,1-4*a*9,3-4	10*a*10,1-2
Nov. 3,	"	7,3-4*a*8	8,1-4*a*8,3-4	9*a*9,12	9,3-4*a*10,1-4
" 10,	"	7,1-4*a*7,5-8	7,7-8*a*8,3-8	8,3-4*a*9,1-4	9,1-2*a*9,3-4
" 17,	6*a*6,1-2	7,7,1-4	7,5-8*a*8-1-4	8,1-4*a*9,1-8	9,1-4*a*9,1-2
" 24,	5,1-2*a*6	6,1-2*a*6,3-4	7,1-8*a*7,3-4	7,3-4*a*8,5-8	8,3-4*a*9
Dec. 1,		6,1-2*a*7	7,1-4*a*7,3-4	8*a*8,1-2	8,3-4*a*9
" 8,		6,1-4*a*6,5-8	7,1-4*a*7,3-4	8*a*8,5-8	8,3-4*a*9,1-8
" 11,	none	6,1-4*a*6,3-4	7,1-4*a*7,3-4	8*a*8,38	8,3-4*a*9

This immense fall in price has been sustained with great firmness by the trade, not more than two firms, one German and the other French, having been obliged to suspend. The decline is to be ascribed as well to the money pressure in the New York market as to the adverse state of the Lancashire operations. The prospect of the coming year would seem to be of continued agricultural prosperity. If the demands of England are not quite so great for the better sorts of grain, neither is the supply in the United States probably so ample. That Ireland will require all the corn that she can pay for, is doubtless true; and large sales of that grain will probably be made at remunerating prices, more particularly that the high freights of last year stimulated such an increase in the means of transportation, both internal and external, as greatly to diminish the cost of sending to market. It must be remembered, that on the 1st February 1849, the corn duties in England were entirely to cease by the law of 1845. The temporary suspension of the duties which took place last year, was to continue until March, 1848. The present parliament will discuss the question whether a low uniform duty will be imposed from March 1848 to February 1849, or whether the abolition shall take place in March.

AGRICULTURE AND MANUFACTURES SOUTH AND WEST.

1. Culture of sugar-cane.

J. D. B. De Bow, Esq:

In your June number you notice a communication to the "Planters' Banner," signed "Agricola," and appear to censure the spirit in which it was written.* As the author of the article referred to, I must excuse its spirit of satire by the statement that I was then, and am now, unacquainted with the writer of the article commented on; and in examining the positions assumed, I was actuated by no other motive than to guard my brother planters against what I conceived to be its errors. If in the prosecution of this motive I have allowed my zeal to outrun my discretion or license, I hope to be excused for the reasons assigned, as well as on account of my dialectical desuetude and ignorance, which may have caused the "fault unwilling." I place too high an estimate on the value of well-considered and well-written articles on Agriculture, and parti-

*We are obliged to "Agricola" for the present paper, and receive his explanations. If our strictures have had the effect of bringing him out again, they have not been lost. We should be pleased to have him for a frequent correspondent, and are sure that the public will be of the same mind. Ed.

cularly on the subject of our *peculiar Southern agriculture*, (such as the one referred to undoubtedly is) to do any thing in a spirit of mere wantonness to discourage the very few able and willing contributors. I hope with this amende to make my peace weth you and your correspondent; but should a lurking discontent remain in the mind of the latter, I will herewith give him whereon to exhaust his spleen—promising to take his heaviest blows in good part, and as a necessary atonement for sinning.

I conceive the much-lauded plan of covering under the cane tops through the entire course of the cane's growth as plants and rattoons, to be of doubtful value on *stiff clays*, the only soil to which my experience applies. The evil is, that the covered blades and stalks in wet seasons retain so much water as to render *a crop* on the land impossible, going far to unsuit, for years, the soil for its highest possible productiveness, the natural result of a long retained superfluity of water on soil the texture of which makes water its greatest enemy.

I propose instead to burn the tops off after the first crop from plant cane, leaving the ashes as the only compensation to the soil for the years' subtracted fertility. In taking off the second crop or first year's rattoon, I make each cane cutter lay his top smoothly in the centre between the rows, each man on his left, and butts uppermost, that they may be killed by the winter frosts, and prevented from germinating. Immediately after sugar-making, I turn on the tops so placed, and subsequently regulated if necessary, two heavy furrows of a four-mule plough—and having carefully opened the ditches through the land, leave it in that condition until I have completed my cane planting, when I throw out, with a similar plough, the intervening land and the stubble it contains, thereby perfecting the ridge for the reception of corn. The corn roots penetrating the soil superficially, and being placed high on the ridge—any superfluous moisture retained by the tops being drawn off by the now free water conduit between the rows—the land will produce finely. The next spring, leaving corn-stalks, pea-vines, &c. on the surface, the former being cut down and cut up with the hoe, I open the corn-ridge, and without other ploughing, place my seed cane immediately over a now thoroughly rotted manure pile, cultivating subsequently, *as usual*, or rather as I am in the habit of doing, *thoroughly*.

I thus establish a three years' succession on the land, two of which are of cane; and avoiding the clogged and difficult cultivation, and the consequent dammed water of the second year of the rotation of the present practice, I secure an early planting of cane, and a sufficient fertility, I hope, to the soil. On that portion of the first year's rattoon land from which my seed-cane is taken, I plant potatoes—any other crop will do as well, if there be another of equal value—which leaves a large green debris for turning under and subsequently planting over.

I know next to nothing of the processes necessary on sandy soils. This I remark: that writers whom I presume to live on sandy soils, and who are able advocates of the fashionable method introduced—as I have understood—by Mr. Samuel Packwood, are quite as strenuous advocates of thorough drainage; but by pursuing the plan now in vogue, are they not annulling the advantages they derive from good drainage, and, as Franklin says in 'Poor Richard,' "paying too dear for their whistle?" I think so—and deem that the plan I lay down for their consideration has great advantages, not the least of which is the early planting of their cane, and the consequent early stooling and early maturity of their crop.

AGRICOLA.

St. Mary's, (near Pattersonville,) Dec. 1, 1847.

Art. V.—THE CHEROKEE ROSE—Rosa Lævigata, (Michx.)

AND HEDGING IN THE SOUTH.

The suggestions of the following letter have been anticipated by us. We have, from the beginning of our work, given to Agriculture a prominent place, as the various numbers will evince. The subject has a permanent head in the Review, which it would please us to have occupied by the correspondence of our planters. We are indebted to the writer for his complimentary notice of our

labors, and his well-wishes in our behalf. It is too true that the South has been indifferent to Agricultural knowledge, and that no periodical has hitherto been sustained, devoted exclusively to its prosecution. The cardinal motive with us, in establishing the REVIEW, was the elucidation of ALL THE GREAT PRINCIPLES OF PROGRESS, in every department of practical life. Commerce, as a general term, will include them all—and is, perhaps, the best that could be selected. It is this that brings the consumer to the doors of the producer. They could not otherwise meet. For this the plough is set in action—the spindle moves—the canals, the railroads and shipping are constructed. *The consumer must be supplied:* and it is alike the interest of consumer, producer and intermediate man, *merchant*, that all the complicated machinery be understood, and each division brought under distinct observation. EDITOR.

J. D. B. DE BOW, Esq:

Treatise after treatise has been written and published upon the waste of timber in the common rail fence, where timber is yet to be had for such a purpose; elaborate estimates made of the yearly cost of such fences, in time, labor and material; and endless suggestions as to the best substitute to be employed in different parts of the country. Some propose dry stone walls—than which there can be no better fence, where the materials exist. Others, descanting upon the beauties of an English landscape, in which the neatly-kept hedges of hawthorn occupy so prominent and ornamental a place, propose its introduction here for that purpose, and quote the directions of English authors for propagating and planting it. Some, again, aware of this having been repeatedly tried, and without success proportioned to the cost, point out the adaptation of different native hawthorns, the crab-apple, honey-locust, osage orange, &c., to different portions of our extensive and varied country. Then we have ditches and sod walls, and patent wooden fences of many kinds, for the prairie regions, and, last of all, we have it proposed, and earnestly and ably advocated by the editor of the American Agriculturist and his correspondents, to do away with fences entirely, every farmer housing and feeding his stock, or herding them on his pastures.

We have seen the substantial *stone dykes* of Scotland, and others after the same model in the Eastern and Middle States, and in Kentucky; the beautiful hedges of hawthorn, crab-apple, holly, beech, &c., in England and elsewhere; and close copies of these in different parts of this country, reared, planted and kept in order by a great expenditure of labor; excellent hedges of the Osage orange in Ohio and in Pennsylvania; the utter failures at fencing in the prairies of the West, with sod walls and ditches; and we have tried our hand at almost all of these, in turn, and at every variety of wooden fence, from the last patent Yankee invention, to the substantial post and rail of cypress.—But in no country have we seen a fence of any kind so admirably adapted to the climate and existing state of things—so cheaply obtained and easily kept in order—so permanent, efficient and substantial, or more thoroughly tested, than the CHEROKEE ROSE HEDGE. Many years have elapsed since this plant was first employed for the purpose of fencing in South Carolina and Georgia, and in Adams and Wilkinson counties, Mississippi. Excellent fences of it have there existed for a sufficient length of time to have led to its universal use in the Southern States; yet in many parts of those very districts, though timber has become extremely scarce, hedging is but little thought of—and elsewhere it is almost unknown.

This is by no means a rare instance in the history of Southern Agriculture, and, indeed, of the agriculture of the world. Farmers are proverbially slow in adopting improvements—some from indifference, others from a contempt for theoretical and book-farming—terms freely used when any thing out of the old track is proposed—and not a few from ignorance. It has been truly said, that the apothegm got up in the days of ignorance and maintained by her children ever since—"To plant well, is better than to theorize well"—has been "an instrument of more mischief than any two-edged sword," and of incalculable disadvantage to the agriculture of the South. "Modest merit too often shrinks before it. Let it be asserted, and asserted without the fear of contradiction, (says

the same writer—J. E. Jenkins, in the *Southern Agriculturist*, vol. 7, p. 174) that *theory is the incipiency of all acts;* that the first clod of earth that was ever designedly broken for the introduction of seed with the intention of reaping its production, was the effect of speculation and of mental arrangement. To be able to speculate, proves a scrutinizing faculty; and to theorize to success, the highest mental endowment." He remarks, further: "It is easy for the most ignorant clod-hopper to call himself a planter, and no theorist—as if he thereby conferred upon himself some honorable distinction, whilst he heaped upon the head of his neighbor—whose mind eludidated his practice, and who is not unwilling that the world should share with him whatsoever of good he can impart, —coals of fire and molten lead."

Strong language this, yet how true! No improvement is proposed, no new thing introduced to the planting world, without meeting with severe checks from self-sufficient ignorance. It is on record that the cultivation of cotton as a staple crop, and those who sought to introduce it, were included in the same sneering remark—"a fit crop for a petty farmer, but not for a planter." *Horizontal plowing and the side-hill ditch or guard-drain*, are most valuable instances of "theorizing to success," and require a mind of but very moderate calibre to comprehend their advantages. Yet the first was adopted slowly, and not until whole States had been almost ruined by the old method of plowing up-and-down hill, and is even now unknown in many districts. The latter—the guard-drain, or side-hill ditch—is as yet a thing unheard-of by ninety-nine in a hundred of the hill-planters of the South; or, if attempted, without a correct knowledge of those principles without which incalculable harm, instead of good, is done. Yet this most perfect preventive to the washing away of the surface soil and the formation of gullies, has been known and practised with complete success; and full explanations of the principles upon which they should be laid out, and directions for the work, have been published many years ago. And even plantations nearest to others completely protected in this way from washing, are being washed into gullies, and losing what little soil is left to them, without a judicious effort on the part of the owners to prevent it. And thus it is with many other improvements of equal, or even greater, value.

Much of this might be remedied by means of an ably conducted Southern Journal of Agriculture, through which those farmers willing to impart the benefits of their experience—of their "theorizing to success"—may be induced to do so, sustained by the countenance and support of a well-informed, judicious Editor, against the sneers of folly, or detractions of envy and ignorance.

To you, my dear Sir, we must look for a *South-western Journal of Agriculture*. You have established the Commercial Review upon a permanent footing, and under disadvantages and trials of which no one can form a conception who has not gone through the like—and stand forth the able advocate of the commerce, and, incidentally, of the Agriculture of the South. You are giving, each month, increased interest and value, with increased size, to the Review. You already include, as remarked, the subject of Agriculture and Agricultural improvement; so it is doubtful whether another and distinct periodical, devoted solely to that interest, great though it be, could be sustained. Nor would it be good policy to attempt it. Would it not, then, be advisable to appropriate a separate and sufficient space in each month's Review, to Agriculture and the Sciences, and interests immediately connected therewith—thus offering additional inducements to the planting community to sustain the Review, not only by their subscriptions, but by their pens? Be assured it would. Think of it. We have heard the plan suggested, more than once, by the friends of the Review.

The following essay is offered you for the proposed department—or as you may please—with the hope that it may prove acceptable to you and to your readers.

I am, &c., yours, THOMAS AFFLECK.

"THE CHEROKEE ROSE."

At page 461, of vol. 1, of Terry & Gray's *Flora of North America*, will be found the following description of the plant named as the subject of this article. It is there classed amongst the "naturalized species."

"*Rosa lævegata*—(Michx.): very glabrous; branches armed with very strong,

often geminate curved prickles; leaves three- (sometimes five-) foliate; leaflets cariaceous, shiring, sharply serrate; stipules setaceous, deciduous; flowers, solitary, terminal; tube of the calyx ovoid, muricate, with long, prickly bristles. *Michx.! fl.* 1., *p.* 295; *Ell. sk.* 1. *p.* 566. R. Sinica, *Ait. Kenw.*, (*Ed.* 2,) 3. *p.* 261; *Bot. Mag.*, *t.* 2487; *Lindl.! Ros. p.* 127, *t.* 6, *and bot. veg. t.* 1922; not of *Linn.* R. nivea, *D! hort. Monsp.*, *& prodr.* 2. *p.* 598. R. hystrix, *Lindl. Ros.*, *t.* 17; *D. C. l. c.* R. Cherokeensis, *Donn*, *cs.* R. ternata, *Poir*, ex *D. C.* R. trifoliata, *Bosc.* S. Carolina! to Louisiana! cultivated in gardens and extensively naturalized. April.—Stem with long flexible branches, capable of being trained to a great length. Flowers very large, white.—This evergreen species has been cultivated for many years in the Southern States, under the name of *Cherokee Rose*. It is doubtless of Chinese origin; but as it is not the R. Sinica of Linnæus, we continue to use the name of Michaux, which is several years older than the second edition of the Hortus Kewensis. According to Elliott, it is well adapted for hedges. It is certainly too tender to endure the winter of the Northern States; hence the plant from Lake Huron referred to this species by Mr. Borrer, in Hooker's Flora, must be very different."

Thus far for the Botanist. To the Farmer we will offer a more easily understood description.

But first as to the FOREIGN ORIGIN of this valuable plant. Messers. Torrey & Gray, who are high authority, speak positively on this point. Prince, in his Catalogue of Roses, states it to be a native of Persia, but does not give his authority. Its appearance and habit are foreign; yet we would gladly identify it as a native, and think it quite probable that it is so—and offer the following statements in support of that opinion:

The December (1831) number of the 4th volume of the Southern Agriculturist, (Charleston, S. C.,—a most valuable journal, now, alas! no more) contains one of the (previously) unpublished manuscripts of the late Stephen Elliott, "upon the culture of the Cherokee or nondescript Rose as a hedging plant," in which occurs the following passage:

"The history of this plant is obscure. It was cultivated before the Revolution by the late Nathaniel Hall, Esq., at his plantation, near Savannah river, and having been obtained from thence and propagated as an ornamental plant, in the garden of Mr. Telfair, and the Messrs. Gibbons' of Sharon of Beach Hill, under the name of the "Cherokee Rose." It is probable that it was originally brought down from our mountains by some of the Indian traders. Mr. Kin, a most indefatigable collector of the plants of the United States, and I believe a very worthy and honest man, assured me that he had found this rose on or near the Cumberland mountains, in Tennessee. Michaux met with it in the gardens in Georgia, and perceiving it was an undescribed plant, he introduced it into the gardens near Charleston as a nondescript Rsse. Hence it has obtained in that neighborhood the popular, but absurd, name of "the Nondescript." In Georgia, it has always retained the name of the "Cherokee Rose."

In the second volume of the American Farmer—that pioneer journal, to which, with its veteran editor, J. S. Skinner, we are indebted for more than the non-reading portion of the farmers of the present day have any idea of—at page 118, is a communication signed "Wm. W. Anderson, Statesburg, S. C., June 16, 1820," from which we quote in support of the same opinion: "*This* is a *native* plant, and has been generally called, in South Carolina, *nondescript*. It is now more properly known by the name of Cherokee Rose, on account of its being found in the greatest abundance in the tract of country inhabited by the Cherokee Indians."

We have no facts of our own to offer—but think the above views so clear and positive, that they may safely be advanced in support of the *hope* that the Cherokee Rose may prove to be indigenous to the South, and not an exotic.

The *Rosa lævigata* is an evergreen, approaching to a vine in its habit of growth; the leaves are very dark green and beautifully glossy, or shining—hence its specific name. Its long and strong shoots are completely covered with stout and very sharp prickles, curved backwards. The wood soon acquires a hardness which prevents its being browsed upon by any kind of stock—though, during a hard winter, cattle and sheep will pick off the leaves, without injury to the plant. The blossoms, which appear very early in the spring, in vast numbers, are large, single, and of a peculiarly clear and pure white. The flexibility of

the long shoots allows of their being laid up into any form or position that may be desired; and as they readily take root when layered, weak places in a hedge are quickly and permanently strengthened: and though inclined, if neglected, to run wild, it bears the knife and shears well, and can readily be reduced again to order whenever desired. We have seen hedges of it occupying a space of twenty feet, and from fifteen to eighteen feet high—picturesque objects in the landscape, but bad marks of neat farming.

We would commend this plant for hedging for the following reasons: for beauty, strength, permanency, facility of propagation and culture, freedom from disease and from injury by stock or insects, peculiar adaptation to our climate and wants, and to farms cultivated by negroes, the rapidity with which it forms a perfect and substantial fence, the exemption of such fences from destruction by accidental fires, and the facilities it offers the planter of forming permanent enclosures without exhausting his supply of timber.

[TO BE CONTINUED IN OUR NEXT.]

II.—DIFFICULTIES IN THE SUGAR CULTURE.

THE annexed letter was sent, we are sure, without any disposition on the part of the writer, Mr. Brashear, for its publication. We, however, take the liberty —a sort of editorial one—in this instance of giving it to the public, assured that if it can effect good the author will not object. The experience of our intelligent planters is worth a great deal and should be freely given to each other. We have often invited them and still invite them to fill a department in our Review with their correspondence.—EDITOR.

I hope your valuable work will be sustained to the full remuneration of yourself for your labor and enterprise; as I am sure your patrons will insure an ample reward for the pittance they contribute individually. I have seen with pleasure the interest you have taken in our important staple of sugar, and although you may sometimes be deceived by those who think they have made important discoveries in the culture and manufacture of sugar, yet every investigation leads as to the correction of errors, of which I believe there are more in the management of the cane crop than any other staple produced in the country. And why? It is because the cane, in my opinion, possesses a character *sui generis*, which, notwithstanding the closest observation for twenty-five years has baffled the sagacity of the most experienced planters in the country; and all who speak in candor admit that the character of the cane plant is still a mystery. The success of one planter, who this year succeeds upon some innovation which he has made on former plants, fills him with the hope that he has found out the great secret in making a cane crop, and behold the next year the same process is an entire failure, —and thus have our hopes risen and fallen. during my experience of twenty-five years. Sugar planters have run into extremes in their changes generally. For many years they planted too close: on finding that wider planting succeeded better, they extended it too wide—from four feet they have gone to eight in many instances. New and rich lands admit of the greatest distance, and thus the cane shows one of its peculiarities. If you put a short quantity of seed on old slow land, the cane will be backward, no matter what the season may be, it will never advance upwards until it has filled the ground so as to shade it at the base, and this in a plant that requires so much heat to mature it, is another enigma not easily solved. Some seasons I have known water to stand around cane for weeks at a time, in midsummer, and still the crop was luxuriant and fine; and other seasons I have known it entirely destroyed with a less duration of the water about its roots. But who would suppose, but he who kows the fact, that roots of cane, small and delicate in appearance, would penetrate three or four feet in in the hardest soil we have. This I discovered many years ago from a deep gulley being washed through a cane field on the side of a hill on Belleisle. And to this peculiarity of cane root penetrating the hard soil I attribute the successful growth of cane surrounded by water after the roots have entered the solid

earth, where the water is excluded, but would necessarily be drawn by the same water coming in contact before the roots had buried themselves in the soil not penetrable by water.

I do not wish to tire you with this scrawl, but have only to add that we have more to learn on this subject than we have at present acquired.

INTERNAL IMPROVEMENTS—MINING, RAILROADS, ETC.

I.—HOLLY SPRINGS AND MEMPHIS RAILROAD.

HOLLY SPRINGS, Miss., November 10th, 1847.

J. D. B. DE BOW Esq.—

I am much pleased to see the ability with which you advocate the construction of railways through the planting States, in the Commercial Review. I hope you will continue to do so until the citizens of the South and South-west shall awaken to their own interest and the public welfare. I hope every planter and commercial man throughout the planting country, who has the welfare and prosperity of his country and his own at heart, may become the readers of the Commercial Review.

Being a warm advocate of railways and desiring all should become acquainted with their true merits and advantages, I wish to state a few facts for your information; facts with which you may or may not be acquainted, in the hope that you may interest the good people of your city in a work now in contemplation.

In 1836 or '37 a charter was granted by the State of Tennessee to construct a railway from Memphis to La Grange, with a branch to Somerville, Tenn., the length of the main branch being about seventy miles—the State of Tennessee taking one half of the capital. The great fault of the charter was this, it required each five miles of the route to be commenced and completed at the same time; the consequence was, the road was graded the whole distance or nearly so, and no part being put into operation, the capital was exhausted and the monetary difficulties of 1837-'8 occurring about this time, the work was abandoned. The grade has remained unto this day—now become firm and far better than any new grade can be, with very slight repairs.

The public mind has quite recently been directed to the completion of this work. An application has been made to the Legislature of Tennessee, now in session, to incorporate the Holly Springs and Memphis Railroad Company and grant to the new company the interest of the State in the old road. As yet it has not become a law, but we have very sanguine hopes that it will before the Legislature adjourns, when, it is expected the interest of individual stockholders can be extinguished at a small compensation.

This being accomplished, the new company will commence with thirty-five miles of old grade, compact and firm, that can be put in full repair before the iron could be received. The residue of the distance to Holly Springs, being about twenty miles, would be over a very level country of easy grade, crossing no stream of sufficient magnitude to increase materially the cost of construction. It is estimated the road would cost about $10,000 per mile, making use of that T. or H. iron weighing fifty-six pounds per yard, including depots, locomotives, cars, etc.

Let us see what interest the city of New Orleans has in the completion of a railway at such a distance from her borders. Will you take the map of Mississippi and examine it with me: the counties of De Soto, Marshall, Tippah, Tishamingo, Tunica, Lafayette, Panola and the Northern part of Pontotoc, trade at New Orleans—the cotton is carried to Memphis on wagons over as bad roads as any country was ever cursed with, and for a portion of the year absolutely impassable for loaded wagons. The Southern part of Pontotoc county with the counties of Itawamba, Chickasaw and Monroe trade at Mobile, transporting their products down the Tombigbee river, which is only navigable for two or three months in the year. These last named counties contain some of the best cotton lands in the State. Monroe and Chickasaw counties will, in a few years, export

more cotton than any other three counties in North Mississippi. If this then be true, and the facilities of railroad transportation be constructed from Memphis fifty or fifty-five miles into the interior, in the direction of those counties trading at Mobile, will it not extend the radius of trade with Memphis some fifty miles further than now exist? By doing this will it not draw the trade of the counties above named to Memphis and thence to New Orleans, thus diverting it from its present channel. The railroad completed from Memphis to Holly Springs, the Southern terminus cannot long remain at the latter place; it will, sooner than we now expect, be extended to the waters of the Tombigbee. Then will New Orleans grasp in its iron fingers the trade of Lowndes, Octibbeha and Noxubee counties, Miss., and the counties of Fayette and Pickins, Alabama, all now trading at Mobile. The planters of these counties would not wait the raising of the waters of the Tombigbee, when there existed an uninterrupted railroad and steamboat communication to New Orleans at all seasons of the year. If this be so, then is it not true that New Orleans has an interest in the construction of a railway from Memphis to Holly Springs. True says the merchant of the Crescent City, extend the road to Aberdeen or Columbus, and we have an interest; let all such recollect that even New Orleans grew from small beginnings to its present size and importance, and that a railway from Memphis to Holly Springs is only the commencement of the *beginning*.

If your patience is not already exhausted, I will add a few lines upon the subject of an eastern extension to connect with the Georgia and Carolina railroad at Tuscumbia. You know too well for me to repeat it, that Memphis is but little north of a due west line from Charleston, and almostly directly west from Rome and the most western terminus of the Georgia railroad; from Rome to Gunter's Landing on the Tennessee river, I suppose to be about sixty miles; from Tuscumbia, the western terminus of the Decatur railroad, to Holly Springs, one hundred and ten miles. These two links of the great chain completed, and we have an uninterrupted railroad and steamboat communication from New Orleans *via* Memphis to Charleston and Savannah, opening a direct and speedy communication with North Alabama, East Tennessee, Georgia and the Carolinas.

I hold it to be true, that railroad transportation is the cheapest and best now known, if the amount to be transported is nearly equal to its capacity. If this is so, it is needless to say that there now exists steamboat communication by the Tennessee river with North Alabama and East Tennessee. The saving of insurance would of itself more than keep the road in repair, saying nothing of the saving of interest by the more speedy transportation. To facilitate communications and cheapen transportation should be one great object of the citizens of a commercial city, and thus extend the circle of their trade.

What benefits the commercial city also benefits the grower of the product to be transported—one is benefited by the increase of trade, the other by the decrease of the value of transportation. The planter saves his insurance, saves in interest, saves in the cost of transportation, and if a stockholder becomes in part his own carrier, puts a portion of the profits of the road in his own pocket, is made rich by the increase of value of his landed estate in having it brought nearer to a great commercial market. Then I might notice the inducement to imigration, the improvement of lands, the opening of roads, the erection of manufactories. But I shall tire you—if I have not already done so. Pray excuse this liberty; my only object is to express my satisfaction of your course, and, perhaps, impart a little information that may do you no harm, in the hope that you may induce the good people of New Orleans to lend their aid and influence to a work of so much importance, and believe me,

Dear Sir, your friend and well wisher,

WM. GOODMAN.

II.—HARBORS AND RIVERS.

THE President of the United States has vetoed the *Wisconsin Improvement Bill* and set out at large his objections, in a message to Congress. This constitutes another evidence of what Chancellor Kent long ago remarked—"The weight of executive power has been thrown during a greater portion of our history into the opposite scale." We have, on frequent occasions, referred to this whole discussion, particularly in our leading article of September, 1846, to which the reader's attention is called, if desirous of a further prosecution of it.

The President's objections to the bill before him are founded upon the fact, that it appropriates one-half million of dollars for "the improvement of numerous harbors and rivers lying within the limits and jurisdiction of several States of the Union." He considers such improvements as belonging peculiarly to the States, and shows that during the early portion of our history they were conducted by them, Congress in many instances giving its "consent" to the action of State Legislatures. Thus—

Act, Rhode Island, 1790, tonnage duty levied for clearing, etc., Providence river.
" Massachusetts, 1798, tonnage duty for improvement Kennebec river.
" Pennsylvania, 1805, tonnage duty to improve navigation Delaware river.
" Virginia, 1804–'26, tonnage duty for improving navigation James river.
" " 1824, " " " " Appomatox "
" North Carolina, 1821, " " " " Abermale Sound
" South Carolina, 1804, " " building Marine Hospital.
" Georgia, 1787, 1804, " " clearing Savannah river, etc.
" Maryland, 1783–'91–'93, " " improvement harbor of Baltimore, etc.

All of these acts levied "tonnage duties" upon commerce, and Congress have passed many acts giving its "consent" to these and other State laws, the first of which is dated 1790, and the last in 1843. By the latter act the "consent" of Congress was given to the law of the Legislature of the State of Maryland, laying a tonnage duty on vessels for the improvement of the harbor of Baltimore, and continuing it in force until the first day of June, 1850.

As this whole matter is one which for a long time is destined to occupy the attention of the country, we shall watch it closely, and from time to time present the results to our readers.

The progress of railroads among us is one of the great miracles of modern art and civilization, and it is our wish to present in a summary form, each month, those results, which are more peculiarly interesting to us at the South and West. An occasional paper will be devoted to the railroad system of our country and of the whole world.

—

III.—WHITNEY'S PACIFIC RAILROAD.

THE projected road from the North-western States to the Pacific, advocated by Mr. Whitney, has increased its proselytes, if we may judge from the resolutions lately sent to Congress by the New York Legislature, and the resolution passed by that of Alabama. Mr. Whitney is now in the Southern States, devoting all the energies of his mind to the presentation of his scheme and securing co-operation in carrying it out. We are willing that the matter have a calm consideration.

—

IV.—CHARLESTON AND TENNESSEE RAILROAD.

AN important convention was held in September last at Knoxville, Tennessee, to consider upon the importance of a railroad connection between the South Atlantic sea coast and the interior of Tennessee. Col. James Gadsden, of Charleston, made a report, setting forth in strong language the advantages

which he conceived, were enjoyed by that city, as a mart of trade and commerce.

"It is believed, that on a comparison of markets through a long series of years, that of Charleston, for domestic produce, will be found to have been the most steady, the most remunerating, and least subject to those extraordinary fluctuations and vibrations which characterize that of New Orleans—the only reservoir of those immense floods of produce which are annually borne on the Mi sissippi to its Levee. Productions too often do not pay the expenses of transportation. Your committee regret that they have no documents at hand, on which to institute a comparison of markets for a series of years, by which they could arrive at conclusions more certain than those with which they are now impressed. A publication in one of our papers gives us a comparative exhibit of ruling prices between New Orleans and Charleston in September:

CHARLESTON.		NEW ORLEANS.	
Cotton—from	10 1-4*a*12 1-2	Cotton—from	10 *a*12
Bacon, shoulders,	7 1-4*a* 9	Bacon, shoulders,	6 *a* 6 1-8
" sides,	8 1-4*a* 9	" sides,	7 *a* 7 3-4
" hams,	9 *a*11	" hams,	9 *a*10
Corn,	70 *a*75	Corn,	50 *a*60
Flour,	$ 6 1-2*a* 7	Flour,	$ 5 1-2*a* 5 3-4
Rice,	5 1-2 per 100 lbs.	Rice,	6 1-2*a* 6 3-4

It is to be regretted that the comparison was confined to so few articles, though it embraces many of the leading productions of our Western country. Lard, Butter, and many other smaller articles, though not included, it is believed will be found to have been in the same proportion in favor of Charleston. The average price of the former, (and of ready sale at all times,) for West India demand, as well as home consumption, has been from 9 to 12 cents, and of the latter, from 20 to 25 cents. Fresh Butter (and railroads will always afford the means of furnishing it fresh,) commands from 15 to 20 per cent. above the current reported rates. So through the whole catalogue of Western productions may ruling prices be shown, which hold out the strongest stimulants to the people of East Tennessee, if the barriers which now interpose obstacles to a steady and uninterrupted intercourse with Charleston were broken down by a continuous railway, such as the Hiwassee, the last link in the chain remaining to be finished —so certainly promises. Carolina and Georgia are at the door of Tennessee; they have brought their roads to her very borders, and that we may show what has already been accomplished in confirmation of the views as to time and prices, we annex the rates of freights from the last tariff published. From Charleston and Savannah to Knoxville, the entire freight, including boats on the Tennessee, or wagons when the river falls, is—

On hats, bonnets, etc., per foot measurement,	$0 32
On merchandise generally, per 100 lbs.,	2 20
On sugar, molasses, coffee and groceries,	1 40
On flour, bacon, pork and domestic productions,	1 00
The average per 100 lbs. on the above is, we believe,	$1 53

The railroad freights to Dalton are—

On merchandise, etc., per 100 lbs., but	1 40
On molasses, sugar, coffee, etc , per 100 lbs., but	80
On flour, bacon, pork, etc., " " " "	70

If the railroad was finished to Knoxville, and the same rate of freight charged as on the Carolina and Georgia roads, the entire freight to Knoxville would be—

On merchandise, etc., per 100 lbs.,	$1 68
On molasses, sugar, coffee, etc., per 100 lbs.,	96
On flour, bacon, pork, per 100 lbs.,	84
Which would be an average per 100 lbs. of	$1 16

The average freights on merchandise, groceries, etc., from Baltimore, by wagons, to Knoxville, used to be from seven to eight dollars per one hundred pounds, and from the best information of which your committee are in possession, the average freight *via* Richmond, the Virginia Canal, and wagons from Lynchburg, is about four dollars and fifty cents per one hundred pounds—about two-thirds greater than the railroad rates now paid.

The tariff of freights on the Carolina and Georgia railroads, and which are likewise subject to a heavy transmit charge at Augusta, but which are included in the rates above, are based on the existing business, which will not admit of just remuneration for services performed at any great reduction. But the business of a railroad is unlimited. Any amount, with adequate motive and car power, (which constitutes but a small proportion of the outlay, compared with the cost of the road-bed,) can be performed and freights can be made to decline on that universal law of trade, by an increase of business. On the Reading road, in Pennsylvania, where the cars are constantly employed, with inexhaustable quantities of coal, always ready for transportation, and where their locomotives lose no power, but are always employed to their full capacity, the rate of freight has been reduced to the extraordinary low figure (and paying a profit) of one cent per ton per mile. At the same rate, a ton of goods might be transported from Knoxville to Charleston at $5 20 per ton, or about 24 cents per 100 pounds. Your committee do not present this statement to encourage the idea that our Southern railroads could be worked profitably at these low rates, nor do they believe the community would desire less than remunerating prices for services performed; but they are offered in illustration of the vast capabilities of railroads in reducing charges, and as the strongest evidence that the increased business which would necessarily be stimulated by the completion of the entire line of railroad to Knoxville, would strongly induce and fully authorize the managers of these league roads (Georgia, Carolina, and Tennessee) to fall on rates some 25 or 30 per cent. below the present ruling fares.

In conclusion your committee can only add, that under the spirit of the age for rapid railroad intercommunication, if this section of the country will not avail itself of the vast benefits which those avenues of intercourse proffer, others will, and East Tennessee may soon be surrounded by railways, as she is by the mountains, which from this city (Knoxville) bound the horizon in every direction. But your committee will not permit themselves to doubt but that the spirit of the Convention of 1836 will re-animate those to whom this appeal is addressed, and that with one united effort there will be a hearty co-operation in making Knoxville one of the environs of Charleston, and the citizens of each feel that they are the people of but one community.

V.—ST. LOUIS AND CINCINNATI RAILROAD.

The project of connecting St. Louis, Missouri, and Cincinnati, on the Ohio, by a railroad and thus bringing the valley of the Missouri river into communication with the great lakes, is also in active discussion. A Convention at Indianopolis passed the following resolutions upon the subject:

Whereas, public attention has of late been directed to the importance of constructing a railway between the city of St. Louis on the Mississippi river and Cincinnati on the Ohio, whereby in course of time a continuous railway communication will be formed with the Eastern Atlantic cities; and whereas, the right of way for such purpose has already been granted by the States of Ohio and Indiana under liberal charters passed by the respective Legislatures; and whereas, the Terre Haute and Richmond Railroad Company, created under the charter of the last Legislature of Indiana, has already been organized, be it

Resolved, That this Convention does not doubt the practicability and ultimate completion of this great public improvement, passing, as it does, through one of the richest agricultural regions in the world—connecting the commerce of the East and West—bringing into the immediate proximity the chief commercial cities of the Union, and promising the richest returns for their investment of capital.

Resolved, That a committee of seven, (of whom the President of this Convention shall be one,) be appointed by the chair to prepare and publish an address

setting forth to the country the character, importance and practicability of this work—the commercial and agricultural resources of the country through which it passes—the great advantages it will secure to the country and to capitalists, and such other matters connected with it as may be of general importance, and that the same be prepared and published at as early a period as possible after the adjournment of this convention.

—

VI.—MOBILE AND OHIO RAILROAD.

Mr. Troost, who was appointed to survey the route for a railroad from Mobile to the Ohio river, and whose valuable paper upon the subject we published last year, (though incomplete, in consequence of the author's not sending the whole of the manuscript, as we maintain,) has published a letter in which he refers in flattering terms to the prospect. We wish our sister city, Mobile, the most unbounded success in this, her great enterprise. Mr. Troost says:

The estimates which I made for grading the road, in the pamphlet, will be greatly reduced; indeed I have no hesitation in expressing the belief that your railroad can be built in the best manner for a smaller sum per mile than any other railroad in the United States. The route, generally speaking, is level. It abounds in timber of the best quality. There will be no rock to encounter, and the excavations and embankments will be for the most part through a good mixture of sand and clay. As far as my examinations have extended, I could not wish for a more level or direct route. If the northern portions of the line will compare with the southern, a railroad can be built which will excel any other for the transportation of freight and passengers, for the reason that it can be constructed *straight* and *level*, or with a *descending grade* to the point (Mobile) to which the heavy freight will be transported. A very lively interest in favor of the road has been expressed by the planters and citizens along the line and to the west of it.

—

VII.—CONNECTION OF SEA BOARD AND MOUNTAINS OF SOUTH CAROLINA.

We have before referred to the various schemes advocated in South Carolina for the connection of the sea board and interior with the mountains of that State and North Carolina. The Legislature has been invoked in aid of private enterprise, but jarring views in reference to routes, have excited an unfavorable influence, as far as we can learn. A meeting lately held at Monticello, in its report, states the following propositions as demonstrable:

1st. That the Broad river valley affords the best route for a railroad, whereby to reach the interior of the State from Columbia.

2d. That the interest of the Charlotte, Greenville, and Spartanburg schemes would be eminently promoted by a union over our common trunk along the valley of said river, inasmuch as the cost to each would be greatly less, while the good of the greatest number would be secured.

3d. That should the Legislature determine to apply any portion of the "surplus fund," in aid of these several enterprises, it would be *best expended* in the construction of one common trunk, along the line indicated in the preceding resolutions, to which they all could and would unite at some point.

4th. That the Greenville Company, independent of any prospect of union with other companies, would promote its interest by locating over the Louisville survey, along the Broad river valley to a point as high as Cannon's creek, if no higher.

—

VIII.—CONNECTING LINK RAILROAD.

We may so entitle this road, which is proposed between Wilmington and Manchester North Carolina. At the latter point it will unite with the branch road to

Camden, S. C., and thence on the Augusta Road. Thus will be united by one continuous chain of locomotive travel the extremities of our union. A late number of the Rail Road Journal edited by our esteemed friend, D. K. Minor, remarks:

By examining the map it will be seen that the Camden branch, which is now in course of construction, and which will probably be extended to Charlotte; and the Columbia branch, is now, and has long been in operation, and which will beyond all question, be extended to Greenville, will open to this road an extensive region of the upland and most productive part of South Carolina; which, in addition to the through and way business, must ensure good returns upon the investment; and therefore, the people of Philadelphia, Baltimore, Washington and Richmond have a double inducement to give their aid to this work, and especially the merchants of Baltimore and Philadelphia, to whom a *wide berth* is given by all who go direct from Charleston to New York by those splendid steam packets. If the merchants of Philadelphia and Baltimore would secure the visits of Southern merchants and business men, *they must aid* the people of Wilmington, and others laboring in this enterprise, to build this road; they must subscribe to its stock—they must show that they feel an *interest* in its early completion—they must do as *Boston* did to draw business from New York. Indeed, they have the same inducements for aiding in this work that Boston *had* in building the Western road, and *has* in constructing the Ogdensburgh and the Vermont roads; and to a certain extent, that the Philadelphia people have in building the Central road to Pittsburgh—viz: to make the communication easier with Philadelphia than with other cities,

—

IX.—MINING RESOURCES OF NORTH CAROLINA.

From a late No. of the "Mining Journal," New York, we learn the following:

The Washinton lead mine in Davidson county, cleared, during one year of its existence, twenty-five thousand dollars, on a capital of only double that amount.

At Gold Hill, there are eight different mining interests, averaging fifty per cent. on their capital on the yield of gold.

At Salisbury, there is a fine quarry of granite, superior to that of New York or New Hampshire.

In Gaston and Lincoln counties, there are abundant iron ores, and also in Catawba. Active forges are in operation.

A fine bed of chalk exists near Lincolnton, answering for pencils or paint; also a bed of limestone and a quarry of variegated marble. Dr. Burton has discovered a vein of *lapis lazuli* of the finest quality, said to be the first in America.

Throughout the counties of Montgomery, Caldwell, Rutherford, Burke, and McDowell, gold ores abound and mines are worked.

—

X.—MINERAL WEALTH OF MISSOURI.

Dr. Lewis Feuchtwanger gives us this summary:

The mineral wealth of Missouri has long been proverbial. The discovery of lead, in 1715, and the production of 9,000,000 pounds, in 1846, must naturally attach sufficient importance to this State. Latterly, also, iron has been made very conspicuous in it, especially since attention has been drawn to the iron mountains of Southern Missouri, which, according to my approximate calculation, contain not less than 600,000,000 tons of iron in their bowels. A short time ago, (1847,) a report was made by Dr. King on the subject of erecting more furnaces on a new locality on the Mississippi river, called Birmingham, and he says that iron exists in that particular spot in great abundance. One ridge, which is called the *Iron Ridge*, contains an immense deposite of *hydrated brown oxide*, averaging from fifty to sixty per cent. cast iron, which shows itself for several acres over the summit of the ridge,and extending down its flanks on each side to the adjoining ravines, where the ore may be seen in thick masses.

As regards iron in the State of Missouri, it appears as plenty there as coal in Pennsylvania; and wherever it is situated, appears to lay in such huge masses, like the coal mines in Mauch Chunk, Pennsylvania.

Next to iron is COPPER of great importance to the State of Missouri. Large tracts, containing this valuable ore, have been discovered on Current river; and on Merrimac river, and in the Southern part of the State, very good veins of copper have been discovered, and wrought to some advantage. In Jefferson county, a very good prospect of copper mines may be seen.

COBALT, is an ore of no less importance than the former. It occurs in the form of black oxide and sulphuret, and is found either in thin layers, in lead mines, accompanying the *drybone*, (*carbonate*,) or in connection with manganese, which is found to contain the cobalt from five to fifty per cent.

ZINC, in the form of sulphuret and carbonate, or calamine, is found in great abundance in the lead mines, where it appears to form the lens, or shell of the veins of lead, it being found on the upper and lower crust of the rock. It is thrown away as useless by the miners, although there are imported into this country over $200,000 worth annually.

SILVER.—It is ascertained that the average of silver contained in all the Missouri lead ores, is from six to eight ounces to the ton, but it has never been attempted to separate the same before bringing the lead in market.

NICKEL.—This rare ore has been found to accompany the copper and cobalt, particularly in localities where the latter is found in a state of sulphuret and combined with the copper ore. One shipment of a mixture of the three metals, averaging in the greatest part the copper, and cobalt and nickel in smaller proportions, has been made a year ago from Mine la Motte, and I understand it has proved profitable.

MANGANESE abounds all over the southern part of the State of Missouri.

Among the non-metallic substances, BARYTES deserves a conspicuous place in this State; for it is found here in great abundance, and of a beautiful white color, suitable for admixture with white lead.

—

XI.—RAFT IN RED RIVER.

IN November last, there assembled at Washington, Arkansas, a large convention of the citizens of that State and Texas, to take into consideration the subject of the interruption of the navigation of Red River by the great and well known RAFT. From the memorial of this convention addressed to Congress, we extract:—

There is a great and growing barrier to our commerce and prosperity, and the longer it remains the greater will be the difficulty of its removal. We need scarcely state that we allude to the great Raft in Red river. This great obstruction has retarded our growth as a State, for so long as our navigable rivers are locked up, emigration will be checked, and the fertile lands which are everywhere to be found above the raft on and contiguous to Red river, will continue to be unsold and settled.

* * * * * * * * *

The whole people of the United States, are, as we conceive, indirectly interested in the improvement of this great river. It takes its rise far beyond the southern and western limits of our national domain, and the productions of millions and millions of acres of land must of necessity be shipped down it to the various markets for which they may be designed. There are thousands and thousands of acres of unlocated lands above the raft, which would meet with ready sale if there were only open navigation in said river—indeed, we know of no section of the Southern country which would offer so many and varied inducements, and become so inviting to emigrants, as the whole of Southern Arkansas, Northern and Western Texas, and the rich and picturesque country now owned and inhabited by the Choctaw Nation of Indians. We have not the language to express in adequate terms, the many and great inconveniences we suffer on accout of this great obstruction in the river. In consequence of it, our finest

lands are frequently overflown and greatly injured; besides, the damage done to our crops by such inundations is incalculable.

* * * * * * * * * * *

It is known that freights on Red river are two hundred per cent. higher than on any other river on our continent, and all on account of the raft. We pay upon each bale of cotton that we ship to New Orleans from any point above the raft, from two and a-half to five dollars, and the freights on every thing else are proportionably high. How different, then, is our situation from that of our neighbors on the Ouachita river, some seventy miles from this. They pay from fifty cents to one dollar per bale for about the same distance. We would also further state, that the distance from many points at which cotton is shipped, at the enormous freights mentioned to the foot of the raft, varies from fifty to two hundred miles, and that cotton is shipped from the foot of the raft at one dollar per bale, and from Shreeveport, forty miles below that point, it is shipped for from fifty to seventy-five cents per bale.

* * * * * * * * * * *

The river is now completely blocked up for a great distance, and the water is sluggish and almost stationary in the raft region; and when there is accumulation of water from the heavy rains, it must seek and have an outlet, and when it escapes from its natural course it runs over the country on either side of the river, for many miles. This would not be the case if the channel or bed of the river were open, so that the water could pursue its wonted course. If the raft could be once removed, and kept out for three or four consecutive years, we have no doubt but the constant washing of the current would widen the river and deepen the channel, and in a few years those fine lands now subject to overflow and lying idle, would be reclaimed, and speedily purchased from the Government. In making an appropriation, therefore, our Government would in reality be selling its wild, and at present, worthless lands. * * * * * * Furthermore, the major portion of the land bordering Red river and its tributaries, are now, in consequence of its obstruction above referred to, waste, and comparatively valueless, and will continue so until the raft is removed, and those inundations of Red river and its tributaries are obviated; and so long as the raft does remain, these frequent overflows in our rivers may necessarily be looked for, and while such inundations continue there will be no lands sold that are at all affected thereby. In support of this view of the case, we can state that Capt. Shreeve was appointed by the General Government to superintend the removal of the raft, and that he succeeded in cleaning out about one hundred and sixty-five miles of it, and all the fine lands bordering that part of the river were reclaimed thereby, and were readily sold by the Government, and there are now flourishing towns and villages, where there was nothing but a wilderness when Captain Shreeve commenced the work.

COMMERCIAL JURISPRUDENCE AND POLITY.

REVISION OF THE LAWS OF LOUISIANA.

Of all the sciences, none are more progressive than what Burke calls "the noblest of them all"—the Law. From the simple and wise commandments God gave to Moses amid the thunders of Mount Sinai to the huge tomes of Cujas, we perceive the necessity of an almost every day addition to the pages of the Statute Book. As long as mankind remained in that primeval ignorance and simplicity which required only the twelve tables to rule them, and which were made the *carmen necessarium* of the early Roman Youth, there was little use for the more than two million of points decided in the common law alone at the present day; or the infinity of reports that stand on our shelves in inglorious repose, because over-ruled by later law. But since the Augustin and the dark ages, a great change has come over human nature. The press, steam and electricity have opened sources of information and communication that has made nations neighbors almost unheard of before. Profit, hawk-eyed, has sought far-off people, and talked with them of barter as with familiar faces and tongues; and thus a thousand avenues have been opened for intelligence and knowledge that the Christian era never

knew before; and thus, from the force of circumstances, has Law spread more wide her protecting wings, and more kindly does Themis smile from her shrine, as knowledge and civilization advance. The rude Baron no longer rips open the bowels of his Serf, wherein to warm his shivering feet! and even later, the starved fellow-man is not hung upon the gibbet for the stolen loaf. Mankind have ceased to think ot the laws of retribution only, and employ their intellects in adjusting the scales of justice in the vast and comparatively new field of commercial and maratime adventure. Human nature ceases to be blood-thirsty and studies equity. She turns her before gloating eyes from the gaol, the penitentiary and the gallows, and looks upon the fair proportions of the temple of justice reared by the enterprise of the nineteenth century. The contests now are on the civil lists, and are carried on in a spirit of amity, a conception of right, and a sum of knowledge in the mass that characterises the progress of intelligence. These observations occur naturally to us as we see at the levee of the embryo greatest mart of the world the flags of every nation. Tyre and Sidon of old did not compare with the prosperity of N. Orleans; and ere long, the docks of London and New York will exhibit a less number of tall spars. The canvass of every nation, kindred and people spreads out upon the gigantic Mississippi; steam-propelled palaces swarm at her banks. and upon her wide swelling bosom are even now floating the wealth of empires. Then what a variety of new obligations, expansive views and vast influences of which the Law must take cognizance in the commercial State of Louisiana? And what are the responsibilities of our legislators in making our statutes conform to this new order of things? Expunge the obsolete in practice and theory, and re-model the practical to suit our exigencies! The task, to be sure, of Hercules in cleansing the Augean Stable will assimilate to such a duty, but the reward of a grateful world will be the recompense. Make laws to suit the times. Revise them by cutting down the weeds that have grown around the structure and hide its goodly proportions. We have now a civil code framed upon the elements of pure justice. Roman, Spanish, and French jurisprudnce have combined to form and elaborate it. Yet much of it might be repealed at this time, and under our peculiar organization with as much safety as were the *Contumes de Paris* and others on the appearance of the *Code Napoleon*. Who among our jurisconsults, (and it is our pride that we have some of the best in the Union,) can delve into our law of successions with any more certainty of his finding his way out than he would in threading the labyrinth of Crete? Who would not believe that ships and other vessels can be mortgaged when the Code (article 3256 tells him so? Yet article 3272 and a number of decisions of the old Supreme Court say to the contrary! (7 L. R. 488, 17 L. R. 158, 2 R. 89, 5 R. 49 & 475.) When one Supreme Court decides that no person can be held to bail, or imprisoned, or kept so on civil process after judgment under the act of 1840, (Thornhill *vs.* Christmas, 12 Rob.,) and another Supreme Tribunal of our State decides the contrary, as in the case of Anderson *vs.* Brinkley, 1 Ann. R., what shall we do? Especially as Sir William Jones, in his excellent work on Bailments, says that, quoting the opinion of Mr. Justice Powell, who emphatically said, (and this is a hint to those who think their own common sense is law.) that "nothing is law that is not reason;" a maxim, says Jones, "in theory excellent but in practice dangerous, as many rules true in the abstract are false in the concrete; for since the reasoning of Titius may and frequently does differ from the reason of Septimius, no man who is not a lawyer, would in many instances know what to advise unless courts were bound by *authority* as firmly as the Pagan deities were supposed to be bound by the decrees of *fate*.

S. F. G.

JOURNAL OF FINANCE AND BANKING.

UNITED STATES TREASURY, 1847.

The elaborate and luminous report submitted by the Secretary of the Treasury, December, 1847, commands our admiration for the ability with which it is marked, and the strong practical views it presents. A brief view of some of the

principal points it enforces and an imperfect sketch of the arguments it elaborates is all we can make at this time.

The Report starts out with an exposition of the amount of receipts and expenditures for the fiscal year ending 1st July, 1847.

Total receipt, including loans,	$52,025,990 82
Balance in Treasury 1st July, 1846,	9,126,439 08
Total means,	$61,152,428 90
Expenditures during the same fiscal year,	59,451,177 65
Leaving a balance in the Treasury, 1st July, 1847,	$ 1,701,251 25
The estimated receipts for the fiscal year ending the 30th June, 1848, are	34,900,000 00
Avails of Treasury Notes and loans,	6,285,294 55
	$41,185,294 55
Add balance in Treasury July 1st, 1847,	1,701,251 25
	$42,886,545 80
Expenditures,	58,615,660 07
Excess of expenditures over means, 1st July, 1848,	$15,729,114 27
The estimated receipts for the fiscal year ending the 30th June, 1849, deducting the deficit on the 1st July, 1848, are	19,370,885 73
Balance former appropriations and specific appropriations asked for this year,	$55,644,941 72
Deduct means remaining applibable to service of fiscal year, ending the 30th June, 1849,	19,370,858 72
Excess of expenditures over means 1st July, 1849,	$36,274,055 09

Deducing his arguments from the data above, Mr. Secretary Walker proceeds to show that with no addition to the revenue the amount of $15,729,114 27 will be required on the 1st July next, to meet the current expenditures of the Government, to which must be added $3,000,000 as necessary at all times to be held available in the Treasury. He is clearly of the opinion, however, that a duty of twenty-five per cent. ad valorem upon coffee and tea would yield to the Government a yearly revenue of $3,000,000, to which, if we add the excess which would result from the reduction and graduation of the price of public lands, $1,000,000, and the extention of the rights of claimants to pre-emption, $5,000,000, would in the aggregate be an addition of at least $4,500,000.

The various modes by which contributions may be levied, sanctioned by the laws of nations and adopted by the President, to draw supplies for our army in Mexico, are next explained and enforced with much clearness and perspicuity. Without reliable information as to the amount collected by Mexico for duties upon imports and exports, the fact is presumable that a scale of duties, such as would be enforced, would produce a larger amount of revenue than the Mexican tariff, which was entirely prohibitory and protective in all its features. Nor would it be the policy of our government to exclude the importation of coffee, nails, leather, flour, cotton yarn, lard, and a variety of other articles, amounting in all to sixty and over, which, under the Mexican tariff, were altogether prohibited. A reasonable duty upon these articles; the substitution of a revenue for a protective tariff and the abolition of the heavy transit charges, it is argued would largely increase our trade with Mexico and bring back to us returns in specie for our exportations. With this system in full and effective operation, it is not doubted the amount of revenue collected would attain to, if it did not exceed the amount collected under the Mexican system of duties, estimated fr om imperfect data at from 6 to 12,000,000 on imports simply. This estimate, however, is based upon the presumption that all the ports of Mexico should be kept in a state of blockade, and the roads opened through to the city of Mexico, with the route rendered secure across the Isthmus for the free passage of our commerce.

The internal revenue of Mexico is estimated at $13,000,000 annually, an amount exceeding, what under our system of military contributions would prob-

ably be reached. It is supposed, however, that it would be continually augmenting as our forces secured a more complete possession of the country. In view, then, of the increase to the revenue, resulting from a duty upon tea and coffee, &c., and from the contributions to be levied in Mexico, an appropriation of $18,500,000 is only asked for, though a much larger amount would be clearly required by the 1st July, 1849, should either of these sources fail in producing the amount expected, or should the war be continued to that time.

We pass over that part of the Report devoted to the reduction of the price of public lands, surveyed as well as those now in progress of exploration, the measures effected to secure to our army in Mexico the grants made to them by the government, and the establishment of ports of entry in Oregon and the extension of our revenue laws in that section, and come at once to the arguments advanced in support of the Constitutional Treasury, as the proper agent for disbursing the government monies. It will not be denied, we presume, that a state of war is the one best calculated to develope the capacities of such an agent. During the last eleven months, the receipts in specie for loans, customs, lands and miscellaneous collections, amounted to the sum of $48,667,886 18, and disbursed during the same period, the sum of $48,266,516 31. Under our old system, it is argued, this amount would have been placed in the State Banks to have been made the basis of paper issues to an extent more than double its amount. This expansion in our currency would necessarily have inflated prices beyond the point to which they attained, and upon its withdrawal a necessary contraction of paper issues would have taken place; prices would have fallen, and, coupled with the diastrous condition of the affairs of England and the bearing they necessarily have upon our country, would most likely have produced much confusion, if not absolute failure and bankruptcy to many of our wealthiest merchants and corporations. Should these last have suspended, the effect would have been manifest in the depression of the wages of labor and the prices of property and products. From this, it is contended, we have been in a great measure saved by the Constitutional Treasury. The specie required by the government has gone into the circulation of the people, and instead of being placed in the banks as a basis of loans to their customers, is transferred from New York to New Orleans, without affecting the business or monetary interests of our country. For the first time in our history, the most unprecedented panic and disastrous results in the English money market has failed to produce any corresponding effect in our own. Our merchants and banks are in a healthy and prosperous condition, and the general business of the country sound and progressive.

The amount coined from 1st January last to 1st December, was $20,758,048 12, of which $3,955,085 80 was coined in the month of November, 1847. The large amount of foreign coin received in New York for eleven months from 1st January last, amounting to $29,904,741 19 is urged, and with much reason, as an argument for the establishment of a Branch Mint in that city. By recoining at our mints all the foreign coin which finds its way into our country, would, after a time, Americanize the coinage of the world, and substitute for the complex system of £ *s. d.*, doubloons, ducats and rupees, which complicate accounts and retard business, the beautiful and simple system we have adopted, of a decimal currency. This system, it is believed from its perfection and simplicity, will ultimately be apopted by the nations of the world.

Passing over the explanations in regard to the $3,000,000 Treasury notes, we are brought to what more intimately relates to New Orleans, the "munificent donation," *made by the First Municipality*, of Customhouse square to the government. This property, Mr. Secretary Walker estimates at $500,000. When it is known, what this Report so positively affirms, that large amounts have been been paid by the government for the ground upon which other Customhouses have been erected, it is a source of proud satisfaction to us, that so extended a liberality should have pervaded the citizens of this municipality.

The Warehousing System next claims the attention of the Secretary, and is treated in a manner which evidences a close study and intimate acquaintance with his subject in all its details. In Great Britain it is most perfect in its operations, and is shown to be one of the principal means by which she has been enabled to extend her commerce over the entire habitable globe. The value of goods of all kinds in warehouse in London, is stated at $387,200,000. The structures themselves, erected by private enterprise, is estimated to have cost $40,000,-

000. By this means customers are brought to the very doors of England for the manufactures of other nations as well as her own.

Having followed Mr. Walker thus far in his Report, we are brought at once to the arguments he advances in support of a revenue as opposed to a protective tariff. And as opinions are so variant among all classes of men with regard to the operation of this law, we shall confine ourselves entirely to a recapitulation of the points he has sought to enforce, in which we trust to do him full justice, without committing ourselves to the opinions he has advanced, or the deductions he has made to result from the facts established.

In the Report of the 22d July, 1846, the annual value of our products was placed at three thousand millions of dollars—double, we believe, what it was in 1840—and it is upon this data and our census returns, we presume that our population is calculated to double in every twenty-three years, and our products quadruple in the same period. We were not prepared for this astounding development of the increase in our productive resources. Of this 3,000,000,000 but 150,000,000 is exported abroad, leaving for home consumption, 2,850,000,000, of which 500,000,000 is the amount assumed as being annually exchanged among the States of the Union. Our imports and exports with all the world is now placed at 300,000,000, having, under the operation of the new tariff, increased during the last year 100,000,000. The exchanges in home products in our own country is made to bear the proportion of $23 81 per individual, while our exchanges with all the world is shown to be 30 cents to each individual, or, to use his own emphatic language, one person of the Union receives and exchanges annually of our own products as much as 79 persons of other countries.

Should our exchanges with foreign countries extend to 90 cents per head, our imports and exports would be 900,000,000, and our revenue amount to 90,000,000. An increase in the consumption of our products in the United States to the extent of 30 cts. per head, would afford an increased market to the extent of $6,300,000, while the same increase throughout the market of the world, based upon the population of each, respectively, would give us a market for 300,000,000. From this it is argued, that should we demand specie in exchange for our products, the demand, from the necessities of the case, could not be complied with, while by receiving the products of other nations in return for our own, the trade might be augmented to the extent assumed.

To establish the fact that it is not the freight which prevents our freer interchange with foreign countries, though from many sections of our Union to others this charge is greater than from our seaports to England, it is affirmed that Canada, with a population of two millions, consumes less of our products than the State of Connecticut, with a population of only three hundred thousand. The duty, then, must create the vast difference which is here manifest. In the diversity of products is to be found, in a great measure, the demand which exists for an interchange between State and State, and with our own and foreign countries. Should England and America be united by a system of absolute free trade, it is contended that our commerce would, in a very short time, exceed the present foreign commerce of both. The home market, it is clearly evident, is not sufficient for the consumption of our agricultural products. The last year was one well calculated to develope the vast resourses of our country in this particular branch of industry. In breadstuffs and provisions alone, our exports amounted to 41,332,282 in addition to the previous year, augmenting the exports of that year to $63,998,273. This surplus could not have been consumed by our manufacturers, and if at any time we can add to our exports the amount here stated, what it, is asked, would we not be capable of doing with the markets of the world thrown open to us?

We are not prepared to dispute the position which is sought to be maintained, that the amount of labor performed by the American freeman, over that of the English operative, compensates for the difference in wages. The fact may be so. It is then but just that labor should reap its full reward, and this, it is affirmed, is the case under the operation of the new tariff law. The mode adpoted by New Mexico in placing a duty of $500 on every wagon load of goods, he conceives the most perfect model of anti-advalorem duties. This was assessed irrespective of value.

For the statistics drawn from the records of the Department, showing the excess of our imports of specie; our exports of domestic products, exclusive of specie, and the increase in our tonnage during periods when high and low tariffs were in operation in our government, as compared with each other, as well as the

arguments deduced therefrom, we would call the attention of the reader to the Report itself. These, Mr. Walker esteems not as arguments simply, but as affording mathematical proofs of the position he assumes: that "a tax or restriction on commerce is a restriction or tax on labor, and falls chiefly upon the wages of labor," and that "it will soon become an axiomatic truth, that all tariffs are a tax upon labor and wages."

We have thus sketched the leading features of Secretary Walker's Report. It presents all the evidences of labor and research. Whatever differences may be found in the minds of men with regard to the doctrines, this may be at once conceded, they are stated with clearness and defended with ability. Being placed before the American people, it will be for them, in their sovereign wisdom to determine, how far these doctrines are capable of application — not for us in this place to solve the political problems evolved.

AMERICAN AND FOREIGN TRADE AND STATISTICS.

The annals of England present no parallel to the commercial embarrassments with which this unhappy country has been afflicted during the past year, whether regarded in point of duration, the extent of bankruptcies occasioned, or the deterioration manifest in every species of property. The call by the Ministry for a meeting of Parliament, which assembled on the 18th November, has doubtless for its object the consideration of the "Currency Question," no less than the condition of devoted Ireland. Ghastly famine threatens to revisit the homesteads of a people, already marked with the foot-prints of want and desolation.

The late intelligence per "Britannia," furnishes the first ray of light which has penetrated the dark cloud so long suspended over the commercial affairs of England. If, as is so frequently affirmed, consols are the barometer by which to test the financial condition of the country, we are not left to idle speculation for the inferences which justify a restoration of credit and improved condition of trade. These government securities are quoted at 84 1-4, the decline of 3-4 from the day previously, being probably influenced by the chances of a civil war in Switzerland. Ten days anterior they were worth but 80. Happily, we are not without other grounds to favor the re-establishment of public confidence, so much required to give healthful tone and action to the monetary concerns of the nation. These indications are to be seen in the *advancing* prices of our cotton and breadstuffs, and the increased activity apparent in the manufacturing districts. The depression in the price of cotton after the advance had taken place, resulted clearly from the fact that the accounts from this side gave higher estimates of the crop, now ready for market, than any previously received, and not from any action of the English money market. This fact is also apparent in a review of the Havre market, where the effect upon prices was felt in a depreciation upon ordinary grades.

The deputation of London Bankers waited on the Ministry the 23d October last, with the view of enlisting the aid of the government, so far as its partial action in the matter could effect the purpose, in restoring public confidence and of infusing greater stability into the operations of trade. To this are we probably indebted for the privilege granted to the Bank of England of extending her discounts beyond the limits of the charter. Had the deposites been removed from the Bank, as was threatened, on the day after this conference took place, it is not difficult to conceive the situation in which the "Old Lady of Threadneedle street" would have been placed. Suspension would have naturally resulted, and the prediction attributed to Mr. Horsley Palmer would have been strikingly verified. This result must be apparent to all.

The government authorized the Bank to relieve the wants of the merchants, under the promise of a "Bill of Indemnity," but opposed any reduction in the rate of interest. We are not of those who place their faith in the Bank of England as the proper agent for relieving the wants of the people in times of great commercial embarrassments and disaster. Its history for the last six months gives the clearest, as well as the strongest evidence of this fact, and we are forcibly driven to the conclusion, that she is no more the great support of the credit of

that nation than is the Bank of Amsterdam the source whence all our circulation is derived.

To what then are we to attribute the restoration of confidence which has measurably taken place? We answer, to the *privilege* extended to the Bank of England to make loans to an amount beyond what its charter authorizes. Not that these discounts have been taken by the Bank, for we have the data before us which establishes an opposite conclusion, but in the influence of the measure which has served partially to allay the public mind and quiet the apprehensions which have so long agitated it. We do not affirm that a rapidly improved trade and stability in commercial intercourse will speedily follow. The elements have not yet become composed. Clouds, dark and gloomy, continue to hang over the commercial horizon, and their aspect is not less portentous and threatening than they were. It is one thing to tranquilize a feeling — it is another to subdue and crush it.

Though it followed the suggestions of the Minister with regard to the rate of interest, the Bank of England is said not to have extended its discounts, but on the contrary to have acted with a view to its own aggrandizement and protection, irrespective of the wants of the people or the requirements of trade. The establishment of this position is to be found in the fact of its having at the time the recommendation was made, less than £8,000,000 in bullion, and only £1,000,000 in its reserve of notes. Twenty days after, it was shown to have in bullion nearly £9,000,000, and the reserve of notes amounting to nearly £3,000 000. Anterior, and for a long time subsequent to the suspension of the Bank in 1797, which continued for nearly a quarter of a century, the rate of interest ruled much lower than at present, though the political aspect of affairs was dark and troublous. John Francis in his history of the "Bank of England'" with regard to its conduct at this time in curtailing their discounts makes the following remarks: "Many competent persons have been persuaded that the decrease of the circulation from 1795, so far from preventing what is properly known as a run on the Bank, possessed a contrary tendency. They asserted that, by reducing the requisite issue and diminishing the general accommodation, a pressing demand for specie was occasioned. This idea is supported by the fact, that, from March, 1792, to June, 1793, there was a drain of cash and bullion considerably larger than in the same period during the crisis; but, *instead of lowering, the Directors raised the amount of their discounts, and an almost immediate result was an increase in cash and bullion.*" This, we conceive, amounts almost to a demonstration.

During the financial crisis of 1825, when firms of the most unquestionable solvency and the strictest honor fell before the storm, the interest charged by the Bank of England was but 5 per cent., and we have the best authority for the assertion, that Bankers, forced to the necessity of sales of stock, submitted to a loss of 72 per cent.

With 8 per cent. as the minimum rate of interest charged by the Bank, and an additional one per cent. by all its branches, we are left entirely to conjecture for a solution of the great question, why these discounts were not effected? Was money so cheap, that those who have heretofore submitted to the most usurious interest and the most alarming sacrifices for its possession, were unwilling to pay it? Could it otherwise be obtained at a cheaper rate? We are assured by Messrs. Baring, Brothers & Co., that it could. What then is the corrollary resulting from the argument?

There are but few men in this country, we believe, who have reposed any confidence in the arguments of those who advocate the "anti-gold league" system of controlling the monetary affairs of a nation. To substitute exchequer notes of any denomination for gold, as the basis of a legal currency, is an expedient we would have conceived too perilous to have entered into the imagination of any man. Yet has even this project found its advocates. It strikes us with some force that this would be carrying the paper system to an extent measurably far beyond what we could have supposed any condition of things would have warranted. But if Mr. Huskisson, during the financial crisis of 1825, could advise the governor and directors, when they suggested an order in council to restrain specie payments, "to place a paper against their doors, stating they had not gold to pay with, but expected it shortly," and this body could entertain so extraordinary a proposition, in the excitement of a crisis like the one through which we trust the English nation will now soon pass, to what expedients may we not suppose them capable of being driven. — It is contended by some that it was

"a wise precautionary measure" to maintain the rate of interest at 8 per cent. We admit our utter incapacity to discover the mode of reasoning by which this conclusion is reached. It must be apparent, at a glance, that England is shackled and restrained in her commercial intercourse with other nations, to such an extent as the rate of interest which prevails with her, exceeds that of the continent—which at the present time is about equal to one half. By means of her Exports, she is expected to discharge her foreign demands; and with this advantage, to speak of no other now operating against her, is it not plainly evident her export trade must be confined to a very narrow compass? We have already seen that the manufacturers are unwilling to engage largely in the production of fabrics while this state of things is continued; and the Bank of England has itself furnished us with one of the strongest arguments in support of the determination of the merchants to cease operations, rather than submit to the exorbitant demands which are made upon them in the shape of interest upon loans. If the mania for railroad investments is as strong as ever, a fear may be entertained that, should the rate of interest be lessened, much of the funds drawn from the Bank will be appropriated to this purpose. But we have more confidence in the practical good sense of the English nation, than to believe that the experience which they have gathered this year, will not exert its influence to prevent a recurrence of the calamities with which they have been so sorely visited. The remark has been made to us, and it has been confirmed by our own observation, that it is impossible so soon for the English nation to recover from a revulsion like the present, as the people of the United States. In the American character there is an elasticity of mind, and an energy of purpose, which enables it to overcome the most formidable obstacles—to resist the most powerful difficulties

When we view this question in all its bearings we cannot but be astonished at the results which are developed. Wa see a nation in the possession of property to the value of fifty thousand millions of pounds, forced to the necessity of supplicating for foreign loans—her commerce languishing and almost in ruins—her "merchant princes" reduced to bankruptcy—her manufacturers either broken down or suspending operations—and her operatives in a state of helpless destitution—and to what is this ascribed? By some, to the investment in railroads to the extent thus far of two hundred millions of pounds; by others to the heavy demands made upon the country in the shape of coin for her importation of breadstuffs; while by a great many to the combination of these two causes, is it attributed.

It is unquestionably true, that public confidence is one of the highest elements of national credit. Disturb for a moment the functions which it performs in the political economy of a state, and the mischief produced will be almost incalculable. That the amounts invested in railway shares were heavy, is admitted on all hands; but that the amount was drawn exclusively from the legitimate pursuits of trade and mauufactures, is, we think, affirming rather too much. Nor do we esteem the fact of the importation of gold into the kingdom is an evidence of returning prosperity, but rather in the light of a premium offered to a neighboring state for the investment of her surplus capital. Without a very strong inducement, it is scarcely to be supposed the project would be entertained, much less would it be consummated—gold being as much a commodity as cotton, corn, or tobacco.

The impression that there is a vast deficiency of currency in England at the present time, and that any new issue of government securities would be speedily consumed in the demand for instalments to railroad stock, we regard as possessing very little weight, and deserving of less confidence. We have already shown that the privilege afforded the Bank of England to extend its discounts, has exerted an almost charmed influence upon the general aspect of affairs, by the confidence which it has infused into every department of commerce. Is it not natural, then, that we should hail it as the indicia of a prosperity not soon again to be disturbed?

We have thus given our crude notions of what we conceive to be the present aspect of financial affairs in England. The subject has been treated at length in an able article in the December number of our Review—to which we would call the earnest attention of the reader.

The following is the last

WEEKLY STATEMENT OF THE BANK OF ENGLAND.

Account for the week ending November 6:

Issue Department.

Notes issued, - -	£22,426,530	Government Debt, -	£11,015,100
		Other securities, - -	2,984,900
		Gold coin and bullion,	7,247,959
		Silver Bullion, - - -	1,178,571
	£22,426,530		£22,426,532

Banking Department.

Proprietors' Capital, -	£14,553,000	Government securities, (including dead weight annuity.) - - -	£10,598,607
Rest, - - - - -	3,581,247		
Public Deposits, (including Exchequer, Savings' B'ks, Commissioners of Nat'n'l Debt and Dividend Ac'ts.)	4,991,313	Other Securities, - -	19,919,915
		Notes, - - - - -	3,030,085
Other Deposits, - -	8,804,395	Gold and Silver Coin, -	303,021
Seven Day and other Bills,	921,673		
	£32,851,628		£32,851,628

M. MARSHALL, Chief Clerk.

Dated the 11th of November, 1847.

The above accounts, compared with those of last week, exhibit:

A decrease in circulation of - - - - - - -	£113,997
An increase of rest of - - - - - - - -	43,428
An increase of bullion of - - - - - -	290,677
An increase of Public Deposits of - - - - -	295,281
A decrease of other deposits of - - - - -	107,047
A decrease of Government Securities of - - - - -	15,000
A decrease of securities of - - - - - -	489,982
An increase of reserve of - - - - - - -	853,345

We have before us a letter addressed to the Augusta (Ga.) Sentinel, by J. H. DENT, Esq., under date of the 6th November, upon the cotton crop. He says that in New York the crop is variously estimated from 2,000,000 to 2,400,000. In 1846 they contended, from the most reliable information, held by them, that the crop would reach 2,000,000 bales. The result proved it far below their figures, and great loss was sustained by those who reposed confidence in their estimates. His facts he deems incontrovertible, but leaves it to those interested to deduce their own conclusions.

Texas, Louisiana and Mississippi have had favorable seasons, and the crop in these States will be full. Up to the 1st September, in South Carolina, Georgia, Alabama and Eastern Mississippi, it was subject to continued disasters; the season since is said to have been favorable. In June, July and August, the crop in these last, the largest producing States in the Union, has had to contend against drenching rains, which injured it seriously, and in August the boll worm appeared to add to the existing difficulties. The favorable September, then, is relied upon to atone for the disasters of the three previous months, undeniably the most favorable months of the year. In addition to this, a very heavy provision crop has been made, and the planters were reported to have been up with their pickings at the date of the letter. With heavy crops, in November and December, the fields are snow-white—no such sight was seen even in November.

Taking the crop of 1844 as a basis he proceeds with his estimate, giving to Louisiana 1,000,000 bales as the receipts of the port the present year, including Texas, and 1,099,033 those of the States east of the Mississippi. Allowing an increase of 50,000 bales for the total increase in the crop would swell the amount to 2,149,033 bales. In view of what has been previously stated, and that in Virginia and North Carolina the culture of cotton has been curtailed by substituting other crops, and much land diverted from the cultivation of cotton to sugar, it is supposed that this estimate will prove a very correct one. We incline strongly to the opinion that the figures are too low.

In the Commercial Summary made up by the New York Courier and Enquirer, for the British Mail Steamer, "Brittania," 2,300,000 bales is put down as the prevailing estimate, with little reason to doubt that it will exceed 2,200,000 bales.

We give below the monthly statement of the supply and stock of sugar and coffee in cwt., in the six principal markets of Europe, for three years, to 1st November, 1847:

	SUGAR.			COFFEE.		
	1845	1846	1847	1845	1846	1847
Holland, - - -	140,000	70,000	117,000	525,000	568,000	314,000
Antwerp, - - -	111,000	68,000	72,000	103,000	48,000	92,000
Hamburg, - -	150,000	140,000	130,000	150,000	130,000	125,000
Triste. - - - -	106,000	172,000	160,000	57,000	64,000	60,000
Havre, - - - -	95,000	90,000	100,000	21,000	28,000	34,000
England, - - -	1,059,000	1,359,000	2,283,000	420,000	444,000	312,000
Total, -	1,661,000	1,889,000	2,862,000	1,277,000	1,282,000	9,377,000

Of which there was of Colonial sugar in Great Britain, in 1845, 771,000 cwt.; in 1846, 867,000, and in 1847, November 1st, 1,485,000. The decrease in the consumption of coffee in England is thus made apparent, and is accounted for on the ground of the large quantities of tea which enter into the consumption of the people. Unlike the United States, the latter article is consumed to a much greater extent.

—

I.—CHINA.

THE commerce of China with the United States has been yearly progressing and is probably at this time of greater magnitude than that of any other nation, if we except Great Britain. Under a system of commercial intercourse, such as at present exists, we may reasonably argue a larger augmentation of our annual exports, than when specie was required to perform those functions which our domestic manufactures may be made to supply.

EXPORTS TEA,	1st *July*, 1846. *to May*, 1847.	1845 *to* 1846.
Young Hyson, - - - - - - -	8,583,135	8,101,485
Hyson, - - - - - - - - -	754,243	838,221
Hyson Skin, - - - - - - - -	1,980,199	102,186
Twankay, - - - - - - - -	1,071,286	283,000
Imperial, - - - - - - - -	956,304	819,876
Gunpowder, - - - - - - - -	1,334,472	1,202,674
Souchong, - - - - - - - -	3,066,466	3,266,130
Pouchong, - - - - - - - -	433,412	732,664
Pekoe, - - - - - - - - -	750,368	731,006
Orange Pekoe, - - - - - - - -	173,350	.....
Oolong, - - - - - - - - -	542,933	198,704
Green, - - - - - - - -	14,679,718	13,149,239
Black, - - - - - - - - -	4,968,558	3,228,304
Total, - - - -	19,648,273	16,377,543

—

II.—BOSTON.

The following statements exhibit the domestic cotton goods exported from Boston for the North, ending the 30th November, and the countries to which they were shipped:

	BALES AND CASES.	VALUE.
Hong Kong.	300	14,479 25
Madras and Calcutta,	100	4,246 33
Colombo, Ceylon,	97	5,162 12
Rio de Janeiro,	293	14,698 90
Montevideo,	15	852 00
Goree Africa.	29	2,275 18
Sisal,	70	4,034 00
Curacoa,	1	60 00
Vera Cruz,	43	4,757 50
Port-au-Prince,	10	1,055 00
Balize,	36	1,863 00

The ice trade forms an important item in the exports of Boston, and is yearly increasing, though, if our memory serves us, the Secretary of the Treasury has not brought it into his estimate of the exports of the United States. New Orleans is shown to be by far the largest consumer in this country. We give below the imports of produce for the past year ending 31st August, 1847:

COMMERCE OF BOSTON.

Flour, bbls.,	842,523	Coffee, bags,	220:057
Corn, bushels,	1,910,546	" piculs,	10,700
" sacks,	144,724	Hemp, tons,	506
Oats, bushels,	562,804	" bales,	41,266
Rye "	6[illegible],758	Hides,	332,849
Corn Meal, bbls.,	11,750	Lead, pigs,	131,793
Rye flour,	3,362	Molasses, hhds.,	79,537
Wheat, bushels,	140,754	" tierces,	4,490
Coal, tons,	221,412	" bbls.,	1,571
" bushels,	126,800	Sugar, boxes,	69,158
" chaldrons,	39,064	" hhds.,	9,766
Cotton, bales,	222,075	" bags,	36,554
Oil, whale and sperm, bbls.,	321,221	" bbls.,	8,765
Rice, Casks,	8,572	Tea, packages,	71,759

—

III.—ROCHESTER, N. Y.

THE commerce of this thriving and populous city, situated on both sides of the Genesee river, and only incorporated in 1834, exhibits annually a marked and decided improvement, owing its rapid growth to the advantages of a plentiful supply of water power. The capital employed in its flouring mills may be estimated from its requiring $3,000,000 to 3,500 000 annually to keep them in operatiou. In 1812 it was represented as a "God-forsaken place, inhabited only by muskrats, visited only by straggling trappers, through which neither man nor beast could gallop without fear of starvation or fever and ague."

During the last three years, for five months—from April to November inclusive—the quantity of flour shipped East by the Erie Canal was, for 1845, 518,318 bbls.; for 1846, 540,232 bbls., and for 1847, 588,080 bbls., showing a gradual increase in each year. The sources whence she derives her supply of wheat are five, viz: Erie Canal, Genesee Valley Canal, Tonowanda Railroad, Lake Ontario and from the adjacent country, by wagons. The amount of bushels received in 1847 was 1,879,110.

—

IV.—NEW YORK.

Amount of Tolls received on State Canals in each of the following years to Dec 1st.

THE article upon New York in our present No. furnishes such complete

information upon all points touching the commerce of this great metropolis, we have deemed it unnecessary still further to extend the subject at this time.

1840,	1,773,582 51	1844,	2,446,037 91
1841,	2,033,261 77	1845,	2,646,117 55
1842,	1,748,869 88	1846,	2,754,467 25
1843,	2,082,145 60	1847,	3,634,847 53

The tolls received at Buffalo, for the navigation season to the 1st inst., amount to the sum of $1,216,900 96.

V.—PHILADELPHIA.

THE increase on the duties collected at the custom house since 1846, up to Nov. 1847, is about $480,000—the total amount collected up to that time being stated at 2,728,462. The exports of breadstuffs alone, from 1st January to 1st December 1847, were as follows:

	Barrels.		*Barrels.*		*Bushels.*
Flour,	413,138	Rye Meal,	21,877	Wheat,	530,266
Corn Meal,	296,491	Ship Bread,	37,109	Corn,	1,091,104

The value of the exports in November, 1847, were $225,110, confined principally to breadstuffs; though we notice in the enumeration of articles, 490 bales of cotton, 2,165 barrels naval stores, and 650 bales of domestics.

The following is the supply of coal received in Philadelphia this season:

	Tons.
Lehigh Company,	633,635.04
Reading Railroad,	1,256,567.17
Schuylkill Canal,	228,318.04
Delaware & Hudson Canal,	346,849.00
Total,	2,465,370.04

THE PUBLISHING BUSINESS.

Cyclopædia of English Literature.—A selection of the choicest productions of English authors, from the earliest to the present time, connected by a critical and biographical history. Edited by Robert Chambers. Boston, published by Gould, Kendall, & Lincoln, No. 59 Washington street, 1847.

Chambers never published a poor or useless work. Most of their publications are of such a popular, suggestive and informing stamp as to be, what this is emphatically, libraries in themselves. As a volume of reference, it will assist the most finished scholar in his search for some particular passage; while the man of business can in it find a fund of information on subjects wherein ignorance is peculiarly awkward and annoying. If we were the father of a family, rich or poor, next to the full works of the great names of English literature, we would choose this valuable Cyclopædia of those illustrious many, whose minds have labored so nobly in framing the thoughts and moulding the sentences of our bold and free Saxon tongue. A language that in copiousness and force, in lessons of liberty, in magnificence of poetry, in depth of philosophy, yields not a whit to Greek or Roman fame. From Chaucer to the writers of the present day, all of any eminence have a place in the book. It contains sketches of their lives and characters, and a

short notice of their works, with selections of the best passages. We rejoice that the editor has not made it an epitome of his own literary taste, and meted out immortality to his authors, by sharing his paper and types in direct proportion to their merit or reputation. He has pursued a wiser course; we get a taste of all our writers of note—and in buying the Cyclopædia, do not pay for a couple of hundred pages of Shakespeare, and the whole of the Fairy Queen, and Paradise Lost, published entire that the editor might be looked on as orthodox in literature.

—

SKETCHES OF LIFE AND CHARACTER IN LOUISIANA—THE PORTRAITS SELECTED PRINCIPALLY FROM THE BENCH AND BAR: BY A MEMBER OF THE NEW ORLEANS BAR. To write the Biography of the *departed*, is at all times a difficult task: but to portray the lineaments of *living* contemporary characters, by whom we are surrounded, and with whom we mingle in our daily intercourse, is one of the highest achievements in literature. Boswell's success argues nothing against this position; for though a blockhead, "who lost his hope of immortality from not having lived at the time that Pope wrote his 'Dunciad,' he yet may be said to stand alone. Plutarch, the prince of Biographers, took his subjects from the illustrious dead.

Tested by the canons of impartial criticism, these "Sketches" fall infinitely below some productions the author has previously given to the press. That they have not succeeded, is clearly evident to our mind. We seek in vain to trace one point of resemblance between the characters which he has thus unfitly grouped. Some have been endowed with abilities of the highest order; with philosophical and legal acumen sufficient "to fright" poor common sense "from her propriety;" while from others, the meed of well-earned fame is ungraciously withheld. We would not impugn the motives of our author; we but express the decided convictions of our mind.

We can honor the warmth of friendship, and the ardor of affection, evinced in the tribute to the memory of a school-fellow, in the person of the "ill-fated Nicholson;" but may not our admiration reasonably be damped when, with a savage hand, the scalpel is applied to the lacerated feelings of a venerable Judge, who "sat upon the banks of the Mississipppi, and gave laws to the commercial world?" We care not whether the insinuation be true or false—is it not enough that he is poor, almost blind, and, in the language of our author, "has nearly finished his career," that the buried recolleetions of twenty years should be revived against him? Is it nothing that he has worn out the best energies of his mind nnd his body in the service of the State? As God judges us, we would rather never have written a line in our lives, than have penned a single sentence that would have carried a pang to the breast of this excellent old man. We must be pardoned the exhibition of some warmth upon this subject. It is our *nature*.

We dissent decidedly from our friend, the author, in his estimate of true eloquence, as applied to Mr. Grimes. The style and manner of this gentleman are convincing to such a degree, as to impress his hearers with the conviction that he has said no more than they could have said themselves—the highest order of eloquence with which man is gifted.

In the pursuit to which our friend has devoted his time and his talents, we know but few, if any, better calculated to shine. The profession he has chosen opens a wide field for legal and rhetorical display—and we augur for him a proud and successful career.

—

SENATE DOCUMENT NO. 407.—REPORT OF A GEOLOGICAL EXPLORATION OF PART OF IOWA, WISCONSIN AND ILLINOIS, BY DAVID DALE OWEN, M. D.

THE diffusion of statistical information in all the great departments of production, natural and artificial, distinguishes the age even more than the triumphs of

modern science. In an economical point of view, the treasures of the mineral world take rank even over the vegetable. It is to coal and iron that Great Britain owes much of her commercial importance—these are the sinews of trade, and by their potent magic the earth will be spanned by a net work of railways and the sea furrowed by hundreds of steamships. We are proud that although we have comparatively but scratched the surface in developing our mineral resources, we have felt the importance of knowledge of this kind; and that in so many of the States geological surveys have been made as valuable to science, as useful to enterprise.

The field of Dr. Owen's labors was the great lead region of Wisconsin, and the no less important coal of Illinois. This last country, lying on both sides of the Mississippi, belongs for the most part to the palæzoic or oldest fossiliferous formations, that which in the early language of geology was termed the transition rock. The formations of the United States are remarkable for their vast superficial extent. It is here that we find coal basins vast enough, like this of Illinois, to cover all England. Here the elevations and subsidences affected continental tracts, and appear to have been less violent and more general than elsewhere. The cliff limestone, the geological equivalent in mineral and palæontological characteristics of the metalliferous limestone of Cornwall and the Penine Hills in England, here stretches from the Southern shore of Lake Superior to the mountains of Tennessee. When its minerals are fully developed, it will no doubt be adequate to supply the wants of the great empire of the Mississippi Valley.

—

American History—comprising historical sketches of the Indian tribes, a description of American antiquities, with an inquiry into their origin and the origin of Indian tribes; History of the United States, with its appendiges showing its connection with European history; History of the present British Provinces; History of Mexico; and History of Texas, brought down to the time of its admission into the Union, by Marcius Willson.—This elaborated and excellent work is for sale by Messrs. D. Baker & Co., No. 80 Camp street, whose establishment for works of such merit as the above, as well as that of more fanciful things in books and stationary, we cordially recommend to the public. As regards the work before us, we think it contains a succinct and clear view of the subject stated, and we hope to see it universally adopted in our universities and schools—being also a valuable addition to our private libraries.

—

The Life of Henry the Fourth, King of France and Navarre: By G. P. R. James, Esq., New York: Harper & Bros, 1847.

No better evidence is required of the interest which will attach itself to the work before us, than that it is the production of one of the most gifted minds of the age. Our time has been so much engrossed by the various duties we are called upon to perform, that we have been unable to give these volumes more than a cursory examination.

The stirring events which occurred during the reign of this monarch, and the influence they necessarily exerted upon the future destinies of France, are familiar to all our readers. As an evidence of the great interest which the author attached to the work, we find the publication was suspended for four years, with the view of availing himself of the materials of the "Lettres Missives" of Henry IV., by M. Bergey de Xivrey—the announcement of which was made about the time this History was ready for the press.

—

Campaign sketches of the war with Mexico, by Capt. W. S. Henry, U. S. A., with engravings.—Harper & Bro., New York, 1847.

We have perused the pages before us with no little pleasure. Most of the works that have recently been issued from the press upon the subject of this war, have been wanting in nearly all the characteristics of history. In the one before us there is a spirit of independence which elevates it above the suspicion of "man worship," that threatens to become the prevailing feeling of the age.

We commend this work to all who take an interest in the stirring events which have occurred in Mexico, from the removal of our army from Corpus Christi to the hard fought battle of Buena Vista.

EDITOR'S NOTE.

To our readers and to the public, without distinction of parties or individuals, we have no objection, one and all, to wish all happiness and prosperity in the year which is before us. We have a common race to run together, and small happiness is it to him who reaches first the goal, that others are behind. "One other command I give you, that ye serve and assist," is as good as "love one another."

We have begun a *fifth* volume of our Book, and if none object, trust we shall reach the *fiftieth*. However, this depends upon the public, not to speak of the contingencies of health, life, &c., &c.

Having now our own printing office and material on a large scale, we can arrange matters this year, it is hoped, to satisfy our desires, which have not yet been met in publishing the Review. The delay in our December number will not weigh a feather in the scale of our future punctuality.

There are a variety of able articles on our table, awaiting their time for publication. The authors will receive our thanks and be patient.

We received in due season, the "New Orleans Miscellany," edited by Dr. Macaulay, and endeavored to prepare a notice for this number. The work has our well wishes as it has the well wishes of all.

Will the Hon. Solomon Downs, Hon. H. Johnson and Hon. E. LaSere, accept our warmest thanks for numerous kind favors in forwarding official papers.